WIM VAN LANCKER

TO WHOSE BENEFIT?

AN EMPIRICAL AND COMPARATIVE INVESTIGATION INTO THE (UN)INTENDED CONSEQUENCES OF FAMILY POLICY IN THE SOCIAL INVESTMENT STATE

SUPERVISORS: PROF. DR. BEA CANTILLON & PROF. DR. JORIS GHYSELS

Starting from the concept of the Matthew effect and inspired by the work of Robert Merton, this dissertation explores the intended as well as unintended consequences of family policy measures in the social investment state. Two overarching research questions are addressed in an empirical and comparative way: 1) Who benefits from government investment in current family policy measures?; and 2) What are the consequences of government investment in family policy? The results suggest that governments have good reasons to care about the social distribution of the benefits of family policy measures. It cannot be assumed that families from different social and economic backgrounds will react in a homogeneous way to the options and opportunities shaped by family policies. The analyses show that inequality prevails in the use of 'new' family policy measures such as childcare services and parental leave schemes: the middle and higher-incomes benefit more from government investment for these measures than low-income families. This is likely to counteract the social investment objective of mitigating inequalities in early life. The Matthew effect in family policy is not set in stone, however, and is related to policy design. In order for the social investment strategy to be effective, due account should be taken of internal consistency of policies and of labour market participation, and social spending should be increased. Notwithstanding the current policy focus on childcare and parental leave, 'old' family policy measures such as child benefits have a direct and important impact on inequality in early childhood. A focus on income protection should be an indispensable part of any successful investment strategy.

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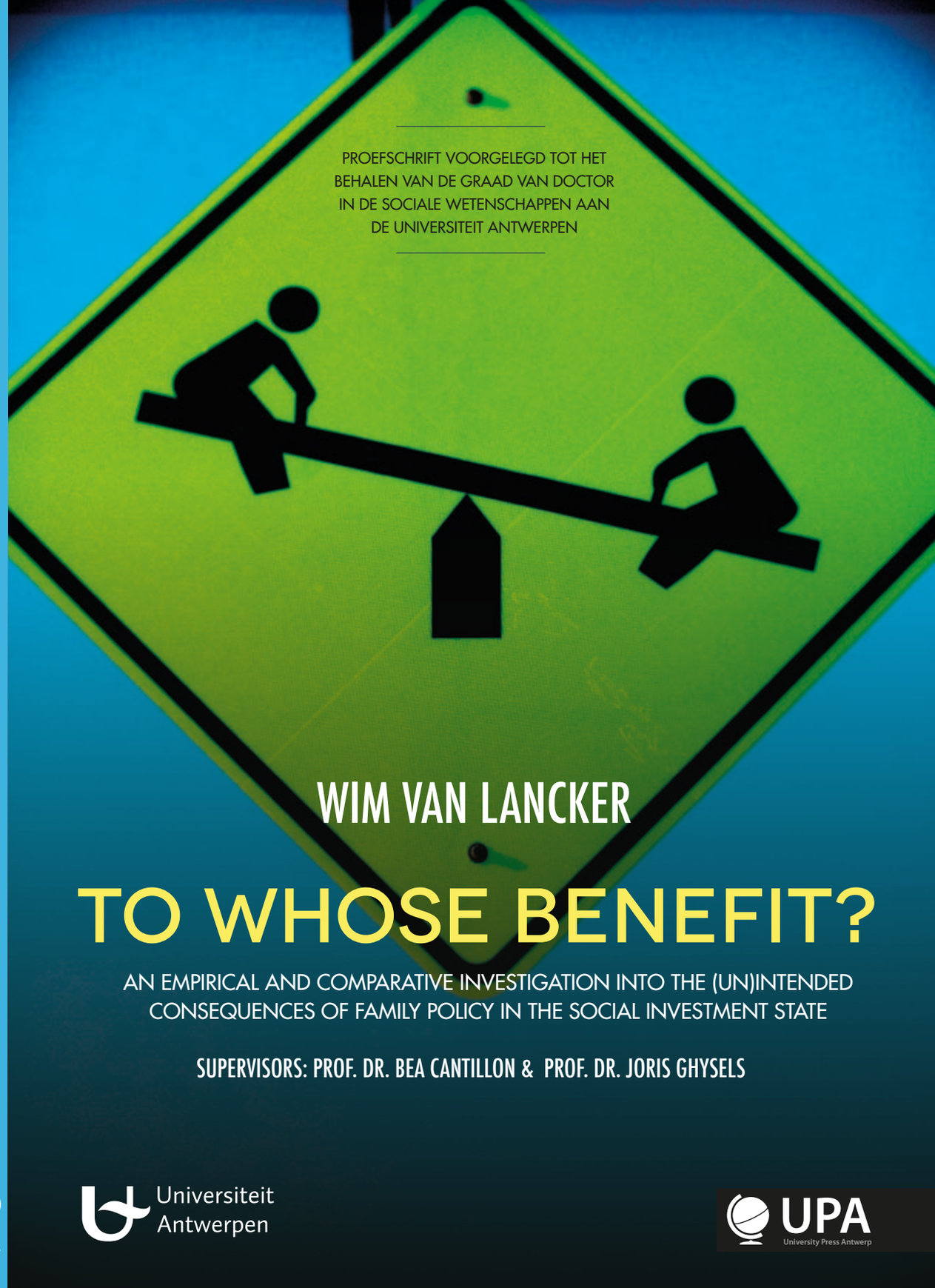

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To whose benefit?

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Wim VAN LANCKER

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Max Weber once wrote that "ideas occur to us when they please, not when it pleases us. The best ideas do indeed occur to one's mind (..) when smoking a cigar on the sofa; or as Helmholtz states of himself with scientific exactitude: when taking a walk on a slowly ascending street." Writing a dissertation indeed bears resemblance to walking on an ascending street, albeit a never-ending one with a very steep grade. Yet above all, for the good ideas to occur it helps to have friends to take a stroll or smoke a cigar with. I am one lucky man to have such great friends. Tobias, Michel, Christophe, Stephanie, Sarith, Lieze, Tuur, Tom, Thomas, Nicolas, Bert, Antoni, Wouter M, Werner, Kristof, Dorien, Sarah, Koen, Rembert, Roel, Wouter C, Alexander, Jonas, Katrien, Ed (superhero), Axel, Petra, Pieter, Doruntina, Matthias, Wendy, Stijn, Andreas, Annelies, Niels, Rien, Dagmar, Kenny, Julie, Kurt, Hermien, Klaas, Petrus, Katrien J, Willem, Bregt, Roeland, Wartd, Lies, Nathalie: thank you for being there when I needed a pat on the back or a kick in the butt. The same holds for my family, Bart and Ann, Els and Merel, and my brothers and sister in law. You have all (often unwittingly) contributed to the completion of this work.

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the tiny little space I occupy is so small
in relation to the rest of space where I am not
(Ivan Turgenev – Fathers and Sons)

CHAPTER 1

INTRODUCTION

The poor stay poor,
the rich get rich.
That's how it goes,
Everybody knows.
- Leonard Cohen ('Everybody Knows')

Leonard Cohen's lyrics express a commonly shared intuition about how social reality works: the rich seem to get richer, while the poor appear to stay poor. It is a phenomenon known as a Matthew effect, a term coined by the great sociologist Robert K. Merton (1968a) in a reference to a verse in the Gospel of Matthew: "*For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath*" (Matthew 25:29, King James translation).

In his 1968 *Science* article, Merton argues that the prevailing reward and communication system in science gives far more credit to well-known scientists, Nobel Prize laureates in particular, than to relatively unknown scientists for comparable contributions. Moreover, he describes this phenomenon as a self-reinforcing process that accumulates over time. Simply put: even though their contributions to the field may be similar, famous scientist tend to become even more famous relative to their less famous peers. This allows them to obtain more resources, amplifying their chances of acquiring even greater fame. Initial advantage begets further advantage, a positive feedback loop benefiting those who are already advantaged (Rigney 2010). This process of "cumulative advantage" is not limited to scientific endeavour,

but can be observed in a variety of social situations and institutional contexts: *"[it] is a general mechanism for inequality across any temporal process (..) in which a favorable relative position becomes a resource that produces further relative gains*" (DiPrete and Eirich 2006). Processes in which the rich get richer (irrespective of whether the riches are expressed in terms of money, fame, influence, career opportunities, or indeed any other valued resource) have been identified in sports, literature, music, art, business, education, the fiscal system, politics *et cetera*. Hence the familiar ring to the truism that the rich will get richer while the poor will stay poor.

In each of the aforementioned fields, the underlying social mechanism of the process at hand is similar, irrespective of whether we are talking about the often-cited paper that subsequently attracts even more citations or about the marginally more talented young ice hockey player who becomes a superstar thanks to better guidance and coaching (Gladwell 2008); those in a position of initial advantage enjoy disproportionate rewards compared to their less advantaged peers (Gal 1998). The initial advantage, moreover, is often a matter of luck, or 'randomness', such as being endowed with a talent at sports or, more generally, being in the right place at the right time (McNamee and Miller 2004). In fact, many of the inequalities and disadvantages we encounter find their origin in the accident (or lottery) of birth. Various crucial factors are more or less predetermined: not only genetic endowments, cognitive abilities and talents, but also parental educational attainment, socio-economic background of the family, the quality of the house in which one lives, and the neighbourhood in which one grows up. Sociological research has demonstrated forcefully how the family in which one is born reproduces social advantage or disadvantage, through economic (Erikson and Goldthorpe 1992) as well as cultural channels (Bourdieu 1996). It is well documented that children growing up in poverty face inferior life chances (Duncan et al. 1998; Hackman, Farah and Meaney 2010), as they start out with a disadvantage they are generally unable to overcome. Indeed, poor children exhibit low levels of social mobility and often become poor parents themselves (Corak 2006). Or, as Daniel Rigney argues, "*would any rational and informed person seriously argue that the son or daughter of a billionaire and the son or daughter of a*

migrant farm worker share anything even remotely approaching an equal opportunity to acquire material wealth?" (Rigney, 2010: 8).

To return to the example of ice hockey: being born with a talent for the game is obviously a matter of luck (insofar as one aspires to becoming an ice hockey player, that is). But the lottery of birth also works in more surprising ways. In the 1980s, the Canadian psychologist Roger Barnsley noticed[1] that a disproportionate share of major league ice hockey players were born in the first months of the year (Barnsley, Thompson and Bamsley 1985). The age grouping in youth hockey leagues is determined by 'hockey years' (between January 1 and December 31), which means that players in the 'same' age group may be as much as a year apart. The older players are generally bigger and stronger than their younger counterparts in the same group. As the best players tend to be picked by better, more competitive teams, the older players enjoy an advantage for no other reason than the random event of having been born in the early months of the year. Barnsley called this the "relative age effect", but it is in fact a perfect example of a Matthew effect whereby an initial advantage begets further advantage. As a matter of fact, the relative age effect has been observed in numerous other competitive sports, including baseball, football, rugby, and soccer (Musch and Grondin 2001). Despite it being discovered more than thirty years ago, the effect persists to this date (Nolan and Howell 2010).

Many people would deem the relative age effect to be unfair, and probably rightly so. However, it also hints at an important positive aspect: clearly this Matthew effect is not an iron law of nature but a social construct, implying that it should be rectifiable by changing the rules of the game. One could, for instance, adapt the organizational structure of youth leagues to countervail the relative age effect. Hence, the process of cumulative advantage, the Matthew effect, is not inevitable. This observation constitutes the first premise of this dissertation.

---

[1] According to Malcom Gladwell, who reports on the story in his book *Outliers*, it was in fact Barnsley's wife who first noticed the month-of-birth bias.

1.1 TALES OF THE (UN)EXPECTED

Social policy is one of the domains in which a Matthew effect has been demonstrated. Herman Deleeck was among the first to investigate who actually benefits from government expenditures on social policy measures. Based on data from the 1970s, Deleeck, Huybrechs and Cantillon (1983) found that Belgium's universal child benefit system, designed to compensate all families for the costs of child rearing, actually disproportionally benefited middle and higher-income families. Children were entitled to child benefits up to age 18, unless they continued to study in which case eligibility was extended to age 25. The Matthew effect occurred because 1) the number of eligible children increased with income; and 2) children from high-income families were overrepresented in higher education. Child benefits had a reversed redistributive effect (from low to higher incomes): as these child benefits were part of the social insurance system, childless families at the lower end of the income distribution in fact contributed to child benefit payments to families with children at the higher end.

Belgian policymakers had of course never intended to implement a child benefit system that benefited the rich; the occurrence of the Matthew effect was an unintended consequence of the interplay between the rules of the game (a policy design effect) and the social structure of families with children (a compositional effect). Deleeck, Huybrechs and Cantillon (1983) showed that similar mechanisms were at play in social housing, pensions, healthcare, cultural participation, and education. Julian Le Grand sketched a similar picture of welfare-service use in the United Kingdom: the better-off were found to make disproportionate use of public and social services such as education, housing, healthcare, social care, and transportation (Le Grand 1982). Similar research efforts have since been carried out in various industrialized countries, identifying Matthew effects in a diverse range of social policy fields, including education, healthcare, infant mortality, career longevity, early-childhood intervention, social security, housing, and childcare (Bakermans-Kranenburg, van IJzendoorn and Bradley

2005; Deleeck, van den Bosch and de Lathouwer 1992; Dzakpasu et al. 2000; Gal 1998; Ghysels and Van Lancker 2010; Gouyette and Pestieau 1999; Petersen et al. 2011; Storms 1995; Walberg and Tsai 1983).

In a classic essay, Robert Merton (1936) pointed out that unintended consequences are an integral part of purposive action and deemed it a 'fundamental process' that calls for a "*systematic and objective study of the elements involved in the development of unintended consequences*" (Merton 1936). Without mentioning the phenomenon of the Matthew effect, Anthony Giddens in turn emphasized the role of unintended consequences of policy action in that they "*promote social reproduction across long periods of time*" (Giddens 1984). In this dissertation, I characterize the Matthew effect as an *unintended consequence of purposive policy action*. This characterization has two properties. First, it clarifies that the term Matthew effect as used throughout this work, refers to a consequence of *policy action* rather than to a consequence of individual human behaviour. Second, it emphasizes that the Matthew effect is an *unintended* consequence, as opposed to the intended objective(s) of a particular policy measure. Applied to the previously mentioned example of child benefits: the objective of child benefits is to compensate all families with eligible children (at least partly) for the cost of child rearing, whereas the Matthew effect is an unintended consequence, a side-effect, of this purposive policy action.

It does not follow from the definition that a Matthew effect is necessarily dysfunctional or undesirable. The intended objectives of policy action are - by definition - wanted, desirable, by the actor implementing the policy measures, notwithstanding the fact that the policy objective might be undesirable to an outside observer (e.g. Merton 1936). The unintended consequence, however, may be functional or dysfunctional, desirable or undesirable. Let me clarify this with another example. In *The Paradox of Redistribution*, Walter Korpi and Joakim Palme conclude for eleven developed countries, on the basis of data from the mid-1980s, that "*the more we target benefits at the poor only [..], the less likely we are to reduce poverty and inequality*" (Korpi and Palme 1998). To substantiate this rather counter-intuitive claim, Korpi and Palme invoked a political economy argument: targeting social spending at the

poor (and not at middle and higher-income groups) marshals less popular support for redistribution, which feeds back into lower levels of social spending. This in turn leads to lower levels of redistribution and poverty reduction. However, it is also the case that the middle and higher-income groups typically benefit more from universally-oriented social insurance programmes than the poor do (Goodin and Le Grand 1987).

As a side note: the matter has recently attracted renewed scholarly attention. In contrast to Korpi and Palme, the most recent empirical studies for OECD and EU economies tend to find that the paradox of redistribution has ceased to exist: targeting is no longer associated with lower levels of redistribution and poverty reduction (Kenworthy 2011; Marx, Salanauskaite and Verbist 2013). I will discuss these recent findings in more detail in chapter 4. The bottom line of the argument, however, is that if universal social insurance schemes are more effective in reducing poverty than selective poverty programmes because they garner broad popular support, then the Matthew effect is a *functional* element of effective poverty reduction even if is not the policymakers' *intention* to make the rich richer. Hence, the Matthew effect is an unintended yet not necessarily undesirable by-product of deliberate policy action. That is the second premise of this dissertation.

1.2 THROUGH THE LOOKING-GLASS, OR: VIEWING SOCIAL POLICY THROUGH MATTHEW'S LENS

In the sequel[2] to *Alice in Wonderland*, Alice wonders what the world would look like on the other side of a looking-glass. After some pondering, she eventually steps through the mirror and discovers a strange, adventurous world where nothing is what it seems, and where actions have rather unintended consequences. In this dissertation, I, too, intend to step through the looking-glass to observe social reality from a

2 *Through the Looking-Glass, and What Alice Found There*, by Lewis Carroll.

different perspective. The main purpose is to approach the notion of a Matthew effect as an analytical device to evaluate the outcomes of contemporary family policies. I will, in short, look at the outcomes of family policy through Matthew's lens.

Viewing family policy through Matthew's lens forces one to go beyond the mean impact of policy measures and to take into account the social distribution of policy outcomes (Heckman, Smith and Clements 1997). Consider the example of the Finnish home-care allowance (HCA). Basically, an HCA or cash-for-care benefit is an allowance that enables (one of the) parents to stay at home and take care of the children themselves instead of outsourcing care to public or private childcare services. The result of a political compromise, the HCA was introduced alongside legal entitlement to a municipal childcare slot for under-threes in 1984 and 1985, and gradually implemented thereafter (Repo 2010). The compromise was the result of a fierce political and ideological debate between the left and the right. The political left emphasized the importance of providing incentives for women's labour market participation by encouraging childcare-service use, while the right advocated parents' freedom to choose between different childcare arrangements (Bergman 2004; Sipilä and Korpinen 1998). The impact of the implementation of the HCA was well anticipated. The political right stressed that it would reduce demand for childcare and consequently reduce public expenditure, as cash-for-care was deemed a cheaper option (Hiilamo and Kangas 2009). Although the 'freedom of choice' rhetoric was framed as being neutral vis-à-vis care arrangement preferences, the left argued it would in fact encourage traditional family arrangements, with mothers becoming homemakers rather than participating in the labour market. As it turned out, these predictions were right on the mark. It has since been demonstrated that the HCA initiated a move to 'refamilization' (Lister 2009; Mahon 2002): the majority of young children in Finland are now cared for at home, and more than 90% of HCA recipients are mothers (Ellingsæter 2012). In terms of user statistics, the policy was a huge success: "*By 1990 when the law was fully effective, child home care allowances had clearly gone ahead of municipal day care as the most popular day care solution for children under three*"

(Sipilä and Korpinen 1998). As a corollary, maternal employment rates are now much lower than in other Nordic countries (Kosonen 2013; OECD 2012a). Note that I have stressed *supra* that intended objectives of policy actions are wanted, desired by those advocating or implementing the measure, but may be undesirable to other stakeholders or observers. Although anticipated, the aforementioned consequences were clearly undesirable to the political left.

The general, mean, impact of the HCA is only half the story, though, for its impact on families with young children is socially stratified. Among those who receive the benefits, mothers on low incomes, with low levels of education, and from a migrant background are overrepresented (Ellingsæter 2012). In viewing the outcomes of the HCA through Matthew's lens and taking due account of its social distribution, we must distinguish between its direct and indirect impacts. First, the majority of recipients of an HCA are to be found in the lower end of the income distribution; hence the direct unintended consequence is that the lower-income group benefits more than the middle and higher-income groups. *Prima facie* this means that there is no evidence of a Matthew effect, or rather, the evidence points at a 'reverse' Matthew effect. Second, as the group overrepresented among HCA beneficiaries enjoys fewer opportunities in the labour market, the benefit of staying at home increases their opportunity cost to seek paid employment. These mothers risk becoming further detached from the labour market. This may in turn result in a negative feedback loop, further widening the social gap between, on the one hand, a group of high-educated, higher-income mothers whose children are enrolled in childcare and who are active in the labour market, and, on the other, a group of lower-educated, lower-income mothers staying at home and providing care for their children. Hence, the indirect unintended consequence of the HCA is that it increases class and ethnic inequalities (Ferrarini and Duvander 2010; Meagher and Szebehely 2012); the Matthew effect emerges as a second-order effect.

In his 1949 *Social Theory and Social Structure*, Robert Merton differentiates between *manifest* and *latent* functions or dysfunctions. To Merton, functions are "observed consequences which make for the

adaptation or adjustment of a given system" (Merton 1968b), and he refers explicitly to functional analysis as a method for evaluating a social system. Manifest functions of policy action are intended and recognized, while latent functions are neither intended nor recognized (see also Ruijer 2012). Applied to the case of the Finnish HCA, lower demand for childcare and increased gender inequality are manifest functions, while the social stratification of outcomes is a latent function. Hence, Matthew's lens can be applied as an analytical tool for revealing and analysing the unintended and unrecognized consequences of deliberate policy action. That is the third premise underlying this dissertation.

1.3 Family policy: Why should we care about its social distribution?

The *Leitmotiv* of this dissertation is an analysis of the outcomes of three family policy measures (childcare services, parental leave schemes, and child benefits) from a macro-sociological and functional perspective. A functional analysis in the Mertonian sense entails a different way of looking at the consequences of social policy. In particular, the outcomes of these three measures will be viewed through the lens of Matthew, by which I mean that the social distribution of policy outcomes will be taken into account. But why should we care about this?

Social policy, and family policy *a forteriori*, shapes the range of options and opportunities open to its intended beneficiaries and affects the living conditions of families (Ferrarini 2006). Julian Le Grand rightly notes that "*policy-makers fashion policies on the assumption that those affected by the policies will behave in certain ways and they will do so because they have certain motivations*" (Le Grand 1997). One cannot assume, however, that citizens will react to policies in a homogeneous way, or as predicted by policymakers. Family policy impacts on the intersection between motherhood, family and employment, yet without taking into account the heterogeneity in terms of preferences, opportunities and constraints in relation to decisions about care and employment, one can neither understand nor evaluate the outcomes of these policies accurately

(Mandel 2012). Mothers continue to bear a disproportionate share of the burden of child-rearing (Budig and England 2001; Uunk, Kalmijn and Muffels 2005), yet lower and higher -educated mothers tend to make different choices with regards to the combination of (paid) work and care. After childbirth, low-skilled mothers often withdraw (temporarily or permanently) from the labour market in order to provide childcare, whereas higher-skilled mothers tend to 'outsource' childcare and remain active in the labour market. Indeed, it has been meticulously documented how the increase in female labour market participation observed over the past decade has been a socially stratified process, with low-skilled women participating to a much smaller extent than their higher-educated counterparts (Cantillon et al. 2001; Evertsson et al. 2009; Konietzka and Kreyenfeld 2010). Moreover, due to the phenomenon of educational homogamy, dual earnership has also been adopted in an uneven way in modern societies exacerbating the labour market disadvantage and the welfare gap between low-skilled and high-skilled families. Mothers are however not only constrained by the structure of the labour market; cultural factors, social norms and personal preferences are also at play (Pfau-Effinger 2004). For example, maternal employment is lower in countries where more traditional norms concerning motherhood prevail (Thévenon and Gauthier 2011). This also holds at the individual level: lower-educated mothers and low-income families tend to hold more traditional views on gender roles and on what it means to be a 'good mother', and they report a lower commitment to paid work (Fortin 2005; Steiber and Haas 2012). In contrast, when it comes to the employment-care nexus, higher-income and higher-skilled families are less likely to have a traditional breadwinner arrangement. Although some scholars (notably Hakim 2000) advocate the primacy of relatively fixed personal preferences and 'lifestyle choices' for explaining stratified outcomes with regards to employment and care, most sociological research stresses that opportunities, norms and preferences are interrelated, and it has been

demonstrated that opportunities tend to shape the context in which preferences are formed (Crompton and Lyonette 2010; McCrae 2003; Steiber and Haas 2009)[3]. In sum, not only do policies shape the options open to its intended beneficiaries, but the manner in which these individuals and families respond tends to be related to the social context in which they live.

If the opportunity structure (labour market opportunities, preferences, and social norms) with regards to employment and care differs vastly across individuals and families from different social backgrounds, then focusing exclusively on the mean impact of policy measures can obviously be very misleading. Surprisingly, though, the opportunity structure for different social groups in analysing the impact of social policy has been rather neglected in the recent scholarly literature. Few studies have considered the heterogeneous impact of social policy on families and individuals from different social backgrounds. In one such example, Budig and Hodges (2010) investigate differences in the so-called motherhood penalty, i.e. the difference between women with and without children, in terms of earnings for women across the income distribution. Keck and Saraceno (2013), for their part, consider the motherhood penalty in employment for mothers with a varying educational attainment. Similarly, Mandel (2012) studies the impact of social policy on gender wage inequality for high and low educated men and women. Rense Nieuwenhuis (2014), finally, asks how the impact of reconciliation policies on women's employment differ for lower-educated and higher-educated women. All of these studies have illuminated class-related differences in the impact of social and family policies.

[3] In the sociological literature, revealed preferences, as measured in surveys for example, are almost invariably regarded as being exogenous to care and employment decisions. The 'fixed preferences' assumption has been convincingly challenged by psychologists (Tversky and Kahneman 1981).

> Starting from the three aforementioned premises, the **first central research question** in this dissertation is: *Who benefits from government investment in family policy?* I will investigate the social distribution of the outcomes of three measures of family policy. This will, in short, reveal whether, how, and which types of Matthew effects are present.

Viewing the outcomes of family policy through Matthew's lens will not only reveal its socially stratified impact (if present), but it might also shed light on its latent functions and dysfunctions. This enables one to investigate the effectiveness of government expenditures for these measures (Gouyette and Pestieau 1999). The mere assumption that each type of social expenditure serves a particular objective (or particular objectives) does not imply that the anticipated goal is effectively reached. For evaluating the outcomes of family policy, it is necessary to include in the analytical framework not only the heterogeneous impact of these measures but also the policy design.

Returning to the case of Belgian child benefits, the observation that this scheme benefits higher-income groups more than it does lower-income groups, while its intended objective is to support all income groups equally, merits that one should 1) evaluate the effectiveness of government expenditures on child benefits in achieving the intended objectives; and 2) if required, adjust the child benefit scheme accordingly. As previously mentioned, the interplay between the universal design of the policy measure and the opportunity structure of its intended beneficiaries generates a Matthew effect. Here, the Matthew effect is dysfunctional in terms of achieving the intended policy objective; government outlays are not spent effectively. This could be offset by for example, introducing greater selectivity into the child benefit system (see chapter 4).

Hence, the **second central research question** is: *What are the consequences of government investment in family policy?* Since a dysfunctional (or functional) Matthew effect might countervail (or reinforce) the intended objectives of policy measures, answering this question enables one to evaluate the effectiveness of spending on family policy. In doing so, explicit account will be taken of the design of family policy measures.

1.4 A BRIEF AND IDIOSYNCRATIC HISTORY OF SOCIAL CHANGE AND FAMILY POLICY DEVELOPMENT

The theoretical formulations of the Matthew effects presented in the previous sections provide a useful analytical tool for understanding and evaluating the outcomes of three family policy measures: child benefits, parental leave schemes, and childcare services. Family policy in general, and these three schemes in particular, have undergone substantial change over the past decades in response to ideological motivations, new needs and demands, and structural economic and demographic pressures. Several theoretical and empirical perspectives on institutional and social change have been explored in the literature (e.g. Esping-Andersen 1990; Hemerijck 2012a; Pierson 2001; Wilensky 1975). What follows is a brief description, in comparative perspective, of the principal evolutions leading to the implementation of the three family policy measures concerned.

From the immediate post-War period onwards, most of the measures taken in the field of family policy were merely income oriented and served the purpose of making society share in the monetary cost of child upbringing and ensuring children's well-being. On the basis of a diverse set of ideological arguments, European welfare states crafted a combination of cash benefits (e.g. child benefits, maternity benefits) and fiscal measures (e.g. tax allowances, derived rights) (Ferrarini 2006; Gauthier 1999; Kamerman and Kahn 1978; Montanari 2000; Wennemo 1992). These family support schemes were designed to cope with the 'old social risk' of child-rearing and served no activation purpose

whatsoever. During the so-called *trentes glorieuses*, an era of economic growth, prosperity and near-universal coverage of social risks (such as unemployment, work incapacity, sickness, and old age), these cash benefits and tax measures continued to expand so that by 1985 all developed countries had some form of family support in place (Wennemo 1992).

During this period, only the Scandinavian countries began to develop large-scale public childcare services. Concern about declining birth rates, prompted by Gunnar Myrdal's *Crisis in the Population Question* (1934), encouraged the Swedish government to institutionalize family policy measures in order to reduce the private cost of raising children, boost higher birth rates, and generate gainful employment for men and women. In 1943, the first state subsidies for childcare services and kindergartens were introduced (Hwang and Broberg 1992). From the 1970s onwards, with a push from the social-democratic party who made it a key priority (Bonoli 2013), the expansion of municipal childcare was accelerated (see chapter 3 for a detailed account of the Swedish case) and parental leave legislation was introduced. Similar developments took place in Denmark (Ellingsæter and Gulbrandsen 2007); Finland and Norway followed a less expansive but more ambiguous policymaking pathway (see the discussion of the HCA *supra*, see also chapter 5). In Eastern European countries, a particular type of parental leave schemes, i.e. home-care allowances (*supra*), was developed from the 1960s onwards. Hungary, for instance, introduced such an allowance in 1967 at a time of labour surplus with the explicit objective of discouraging employment for low-skilled women (Kamerman and Kahn 1991). Other Eastern European countries implemented similar policies, usually in the shape of long leave periods involving rather generous allowances. As will be demonstrated in the next section, to this day the Central and Eastern European member states of the EU stand out in terms of parental leave provisions. In other countries, the focus has remained on cash benefits and tax breaks for families with children. In some continental countries, notably Belgium, France, the Netherlands but also Italy, a universal system of (part-time) preschools for children aged 3 or 4 years to compulsory school age developed as a part of the education

system (Bonoli 2013; Morgan 2009). Its objectives were pedagogical, however, and served no purpose of 'activation'.

By the 1970s, the industrialized welfare states had reached a considerable level of maturity, and yet they had sailed into some very choppy waters. This was, after all, period of serious social and economic upheaval. Growth was slowing down, unemployment was rising and the post-war institutions of the welfare state seemed unable to cope with the consequences of a number of evolutions following the economic crisis, including the advent of economic globalization and growing international competition, demographic changes, the tertiarization of employment, changing family relations, the mass entry of women into the labour market, and new migratory flows (Bonoli 2005; Morel, Palier and Palme 2012; Taylor-Gooby 2004). Designed to cope with traditional 'old social risks', the welfare state had to set out in search of an adequate response to a set of unfamiliar new challenges and newly-emerging social risks such as being low-skilled (often resulting in a high unemployment risk), single parenthood, the problem of combining care duties with paid work, the necessity to care for frail relatives and insufficient social security coverage (Bonoli 2005; Taylor-Gooby 2011; Vandenbroucke and Vleminckx 2011). Although welfare states have, *prima facie,* proven to be remarkably robust over the past four decades (Pierson 2011), in qualitative terms there has been an important shift away from the traditional welfare settlement, both at a policy level and in terms of ideas (Dwyer 2004). Initially incrementally and restricted by the laws of path dependency, but more explicitly since the mid-1990s, a common focus on employment, social investment and cost containment has emerged that is underpinned by European discourse and policy (Cox 1998; Hemerijck 2011).

The so-called post-industrial transition has resulted in often painful shifts in the labour market, from industry to services and from low-skilled to high-skilled jobs (Iversen and Wren 1998; Pierson 2001). This has been a momentous change. Since the early 1970s a process of de-industrialization has taken place and the share of industrial production in the creation of national wealth has declined. Conversely, the importance of services has grown throughout the post-war period.

According to figures from the OECD STAN Indicators Database, employment shares of manufacturing industries in the total economy of OECD countries have declined substantially since the 1970s (from between 25 to 30 per cent to between 10 and 15 per cent by the mid-2000s), while employment in services has increased rapidly (Wölfl 2005). At the same time, job content has changed dramatically: the share of routinizing and 'alienating' labour stemming from the industrial era (the traditional working-class jobs) has declined and generally made way for more knowledge-intensive jobs (be they low-end service jobs or high-end creative jobs) (Goos, Manning and Salomons 2009; Oesch and Menés 2011). This evolution implies a shift towards a higher-skilled workforce and hence the likelihood of a widening gap between those who do and does who do not possess the skills demanded by a 'knowledge economy'.

Consequently, a substantial group of people, often low skilled and/or socially vulnerable, has become economically redundant, resulting in greater reliance on social benefits and thus higher dependency rates (and costs) in social security. Pierre Rosanvallon (1995) termed this *la nouvelle question sociale* – the new social question. To the extent that the low skilled become detached from the dominant culture in society (as it finds expression in the middle classes), their economic exclusion coincides with a far-reaching exclusion from the social, political and cultural spheres. This at once sheds light on the paradigm shift that has taken place in the social agenda, away from protecting people from the perils of the labour market (by means of, say, unemployment benefits) towards the notions of 'social inclusion through work', 'welfare-to-work' and 'investment in human capital', which are now prevalent in European discourse on social protection (Dean 2007; Gilbert 2002; Lewis 2009).

Intertwined with this labour market transition are evolutions such the *emancipation of women* and the *changing patterns of family formation*. The post-war welfare settlement was grounded on gendered assumptions: men were primarily responsible for generating the household income, while women took care of the children and household chores, a 'silent agreement' resulting in regular and fulltime male employment and stable

families (Lewis 2001; Orloff 2006). This model began to erode, however, from the second half of the 1960s onwards, as evidenced by a massive influx of women into the labour market, changing patterns of family formation and growing divorce rates (Blossfeld 1995; Crompton and Lyonette 2006; Lewis 2009). Described by Ann Orloff as a 'farewell to maternalism' (2006), the policy logic shifted from supporting women as mothers and full-time carers to encouraging employment for all, reflecting the ideal of a gender-neutral and individualized model in which men and women are regarded as both workers and carers (Esping-Andersen et al. 2002).

The consequences for the functioning of the welfare state were far-reaching. First and foremost, the emancipation of women meant that the working population grew quite strongly, which inevitably translated into great imbalances in a labour market already in full transition. As a result, the socio-economically weak (be they men or women) saw their position further deteriorate, while the impact of the growing service economy increasingly affected the employment opportunities of low-skilled individuals. Second, the outsourcing of care work, previously performed unpaid by women, suddenly came at a cost. Moreover, as women continued to be largely responsible for care work within their families, and despite the formal ideal of the individualized worker, this resulted in a double – and sometimes excessively burdensome – day's work for both single parents and mothers in dual-income families. Third, marital instability led to an increase in one-person households and lone-parent families, an evolution that commonly went hand in hand with an intensified poverty risk for such vulnerable households (Esping-Andersen et al. 2002).

In sum, men and women alike were now expected to engage in paid employment, and family policy had been reoriented to fully support this new vision. Denmark and Sweden were well equipped to deal with these new needs: dual earnership had been more or less the norm there since the 1960s and family policy already incorporated childcare services and parental leave schemes, designed to facilitate the work-life balance. Other European welfare states were also reorienting their family policy measures, expanding childcare service provision and parental leave

eligibility, including in countries where the role of the state in family matters had traditionally been limited, as in the United Kingdom (Lewis 2006a). Moreover, the way family policy responses to the new challenges were implemented varied across countries depending on the normative and institutional frameworks into which they were fitted (Mätzke and Ostner 2010). That being said, clearly today both growing employment and the reconciliation of family and work are key considerations in contemporary family policy, firmly underpinned by European discourse and promoted by international organizations such as the OECD (Bonoli 2013; Mahon 2006; OECD 2011b).

1.5 A THREESOME OF FAMILY POLICY IN THE SOCIAL INVESTMENT STATE

Social investment constitutes a set of policies and ideas that emerged in the mid-1990s as a response to profound and fundamental changes in the labour market and in the demographic structure of societies, and the emergence of new social risks and needs (Hemerijck 2014). The core idea underlying social investment is that social policy should no longer focus on 'passively' protecting people *against* the perils of the market by means of cash benefits but rather on preparing or 'empowering' people with a view to integrating them maximally *into* the market (Jenson and Saint-Martin 2003). Labour market integration is regarded not only as a superior way of achieving income protection and social inclusion at the individual level, but also as an indispensable feature of 'productive' social policy systems, as higher employment levels decrease benefit dependency and contribute to sound public finances, hence to the future sustainability of the welfare state itself. The prime channel to achieve this ideal of social inclusion through labour market participation is long-term investment in human capital, beginning in early life (Hemerijck 2012b). This ought to ensure productivity improvement for future generations and bestow upon individuals the necessary skills in order for them to be able to grab the opportunities that present

themselves in a knowledge economy and, ultimately, to break the intergenerational chain of poverty (Esping-Andersen 2002).

It is safe to say that the social investment framing of problems and solutions in the field of social protection is now the accepted view in most countries, inside as well as outside the European Union (Cantillon and Van Lancker 2012; Jenson 2012; Peng 2011). At the European level, the basic principles have been diffused through the 2000 Lisbon Agenda and the ensuing EU2020 strategy (Cantillon 2011; Daly 2012; Peña-Casas 2012). Indeed, in the early 1990s, growing female employment and the reconciliation of family and work began to emerge as key elements in European discourse on family policy in the wake of some profound changes in European welfare states (Lewis 2006b; Mätzke and Ostner 2010).

At EU level, family policy in the social investment state era became generally embedded in an employment-dominated logic, and accommodating responsibilities at work and at home emerged as an important policy issue (Council of the European Union 1992). Although gender equality, equal opportunities for men and women and the problem of work/family reconciliation were added in 1998 as a separate 'pillar' to the European Employment Strategy (EES) and thus became a subject for the soft policymaking approach known as the Open Method of Coordination (OMC) (Hardy and Adnett 2002), by 2003 these three interrelated principles were *de facto* subordinated to an all-encompassing approach of 'employment mainstreaming' under the Lisbon Strategy, despite being paid lip services in official EU communication (Jenson 2008; Lewis 2006b; Rubery et al. 2003). In short, work/family reconciliation measures are expected to contribute to increasing female employment in conjunction with broader EU labour market measures (e.g. active labour market policies, labour market and working-time flexibility[4], see Fagan and Walthery 2007), and its potential for enhancing gender equality and equal opportunities both in the domestic

[4] The 1997 Directive on Equal Treatment for Part-timers and the 1993 Directive on Working Time.

sphere and in the market has been watered down and encapsulated within the employment objective. Most recently, the notion of early investment in human capital has influenced EU discourse on family policy. In its 2013 Social Investment Package, the European Commission stresses the importance of investing in early childhood through high-quality childcare provision in order to break the intergenerational chain of poverty and exclusion (European Commission 2013a). The objective is to address the problems of youth unemployment and early school leaving in order to ensure that all children would become 'productive' adults. Once again, social inclusion objectives appear to be embedded in an employment-dominated policy logic.

Let us now take a closer look at how the three family policy measures under scrutiny in this dissertation took shape in European countries under the social investment paradigm.

1.5.1 New family policy measures: childcare and parental leave

The first family policy measure promoted by the EU as a lever for removing disincentives to female employment, balancing paid work and family duties, and mitigating inequalities in early life is childcare services. As noted *supra*, it is generally considered to be an efficient instrument for encouraging mothers to seek paid work, thereby contributing to gender equality as well as to investment in young children. Previous research has demonstrated a strong relationship between the level of formal care services and women's employment rates in industrialized countries (Gornick, Meyers and Ross 1998; Jaumotte 2003; van der Lippe and van Dijck 2002). Evidence on the direct, causal impact of childcare services on labour supply is less unequivocal, though. Baker, Gruber and Milligan (2005) and Lefebvre, Merrigan and Verstraete (2009), for example, took the introduction in 1997 of universal, highly-subsidized childcare in Quebec (but not in other Canadian provinces) as an opportunity to estimate the impact on maternal employment; they

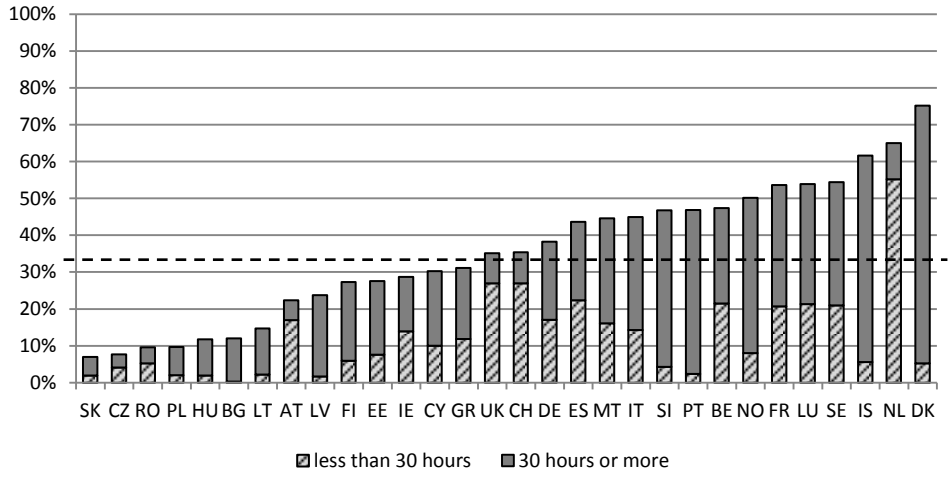
found substantial labour supply effects among mothers with preschool children. Baker et al. (2005), on the other hand, reported that a substantial share of the new childcare usage was accounted for by working mothers who previously relied on informal care arrangements. A similar shift was observed in Norway by Havnes and Mogstad (2011a), combined with a more negative impact of childcare on maternal employment. They took the opportunity of a 1975 childcare reform in Norway to investigate its labour supply effect, and concluded that the newly created and highly subsidized childcare scheme crowded out informal care arrangements, so that the overall increase in net employment was almost negligible.

In the case of childcare and its integration in the ESS, issuing hard law in the form of Directives has failed, and recourse has been sought to soft law (Richardt 2004). Starting from the work of the European Commission Network on Childcare during the 1980s, a Childcare Directive was drafted, though it was never adopted. Nevertheless, childcare became an official policy issue with the adoption of the *1992 Childcare Recommendation*, which reflected a discourse on economic efficiency and labour market opportunities. A decade later, explicit childcare targets, including the objective to provide childcare, by 2010, to at least 33% of under-threes and to at least 90% of children between ages 3 and mandatory school age were adopted at the 2002 Barcelona Summit as part of the Lisbon strategy (Bleijenbergh, Bussemaker and De Bruijn 2006; Council of the European Union 2002). Finally, in 2009, the European Council drafted a strategic framework for European cooperation in the fields of education and training, and adopted the strategic objective for 2020 that at least 95% of children between ages 4 and compulsory primary school age should participate in childcare (European Council 2009).

Whether the soft law of target-setting and the OMC has profoundly influenced national childcare strategies is hard, if not impossible, to assess. Nonetheless, Figure 1-1 and Figure 1-2 show that considerable differences exist between countries and that, hitherto, most fall short of the Barcelona targets. Figure 1-1 shows coverage rates for children aged 0-2 years in a 'regular week' in 2011 (the most recent data available);

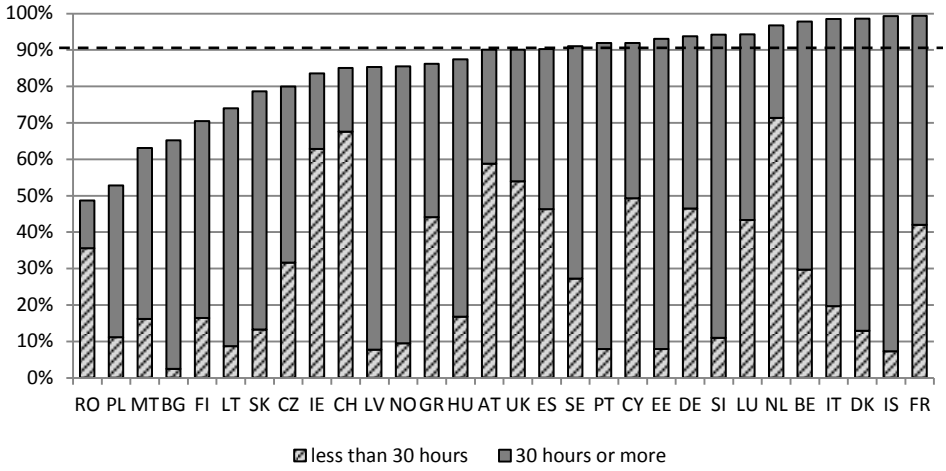
Figure 1-2 shows coverage rates for children aged 3-5 years. Formal childcare encompasses centre-based services, day-care centres, professional child minders, and preschool education.

Figure 1-1 The use of formal childcare across European countries, children aged 0-2 years, %



Source: own calculations on EU-SILC 2011 (EU-SILC 2010 for Ireland). The horizontal dashed line represents the Barcelona target of 33% of children under the age of 3. Countries included: Slovak Republic (SK), Czech Republic (CZ), Romania (RO), Poland (PL), Hungary (HU), Bulgaria (BG), Lithuania (LT), Austria (AT), Latvia (LV), Finland (FI), Estonia (EE), Ireland (IE), Cyprus (CY), Greece (GR), United Kingdom (UK), Switzerland (CH), Germany (DE), Spain (ES), Malta (MT), Italy (IT), SI (Slovenia), Portugal (PT), Belgium (BE), Norway (NO), France (FR), Luxemburg (LU), Sweden (SE), Iceland (IS), Netherlands (NL), Denmark (DK).

Figure 1-2 The use of formal childcare across European countries, children aged 3-5 years, 2011, %



Source: own calculations on EU-SILC 2011 (EU-SILC 2010 for IE). The horizontal dashed line represents the Barcelona target of 90% of children between 3 years and mandatory school age. Countries included: see note under figure 1.

More than half of all EU member states have surpassed the Barcelona target for under-threes, namely Denmark, Netherlands, Sweden, Luxembourg, France, Belgium, Portugal, Slovenia, Italy, Malta, Spain, Germany, and the United Kingdom. The Netherlands and the United Kingdom, however, are somewhat special cases, because the majority of use is on a part-time basis (see chapter 5). Non-member states Iceland, Norway, and Switzerland have likewise surpassed the target. The majority of laggards, i.e. countries that have failed to attain the target, are Central and Eastern European member states. They share a historical legacy of Communist rule, with high female employment rates and extensive day-care provisions for preschool children (Haintrais 2004). After the collapse of these Communist regimes, the expectation was that they would display a trend of refamilization would be observed (Szelewa and Polakowski 2008b). Indeed, the low coverage rates suggest that young children are now cared for at home in these countries. This evolution is also reflected in the availability of long periods of paid leave in these countries (*infra*). The only exception is Slovenia where almost half of the children aged 0-2 attend formal childcare on a fulltime basis.

Other countries that have failed to reach the Barcelona target are Greece, Cyprus, Ireland, Finland, and Austria. The low rate of childcare use for under-threes in Finland is related to the success of the existing home-care allowance (HCA) in place (*supra*; also chapter 5).

The situation is different insofar as coverage rates for children aged 3-5 years are concerned. Most European countries have systems offering pre-school (e.g. kindergartens), with higher coverage rates and hence less cross-country variation in these rates (Figure 1-2). Romania is the only country where less than half of eligible children are enrolled in pre-school, while the majority of countries record usage rates above 80%. In all, 15 of the EU27 countries have attained the Barcelona target, namely: France, Denmark, Italy, Belgium, Netherlands, Luxemburg, Slovenia, Germany, Estonia, Cyprus, Portugal, Sweden, Spain, and the United Kingdom. Non-member states Norway and Switzerland fall short of the mark, whereas in Iceland coverage is almost universal and fulltime.

A second important aspect of the EU's focus on employment and the reconciliation of work and family concerns the implementation of leave rules. Take-up of leave and use of childcare services are interconnected, as leave entitlements enable parents to interrupt employment and to care for their young children at home, thereby temporarily reducing the need for external childcare services. Nonetheless, parental leave and childcare service provision are both activation oriented. Leave rules foster parents' bond with the labour market by maintaining the contractual link between employers and employees, even though the latter retreat temporarily from the labour market to take care of their children (Ghysels and Van Lancker 2011). The employment effect of leave is however more complicated than that of childcare provisions, as it depends in part on the length of the leave, on the conditions of entitlement, and on the generosity of the allowance (Gornick and Hegewisch 2010). Short periods of particularly well-paid leave have been shown to be beneficial to female employment: young mothers-to-be are encouraged to reinforce their labour market attachment by the facts that taking leave will induce only minor income loss and that they will subsequently be able to return safely to their jobs

(De Henau, Meulders and O'Dorchai 2007; Del Boca et al. 2007). Still, if the duration of the retreat out of the labour market is too long, there are fewer incentives for young women to start a career prior to childbirth, including due to deteriorated career prospects after the leave period (Gornick, Meyers and Ross 1997; Morgan and Zippel 2003a; Nyberg 2004; see also chapter 6). When the leave allowance is too low or even non-existent, there is little incentive to take-up leave, especially for members of low-income families who cannot afford to forfeit earnings (Fagan and Walthery 2007). Finally, as with childcare services, leave is a potentially powerful instrument to promote gender equality in both care arrangements and in the labour market[5]. The OECD makes a distinction between four types of leave entitlements: maternity, paternity, parental and home-care leave (e.g. the Finnish HCA, *supra*) (OECD 2011b).

In contrast to the soft targeting in the case of childcare services, the EU has influenced national policymaking on leave rules in a direct, 'hard', legislative way by introducing legally binding Directives[6] (Moss and Deven 2006). Examples are the *1992 Pregnant Workers Directive* (92/85/EEC), which stipulates that workers who have recently given birth or who are breastfeeding should be granted the right to maternity leave of at least 14 continuous weeks with either retention of their salary or an adequate allowance, and the *1996 Parental Leave Directive* (96/34/EC), which prescribes a minimum right to three months of

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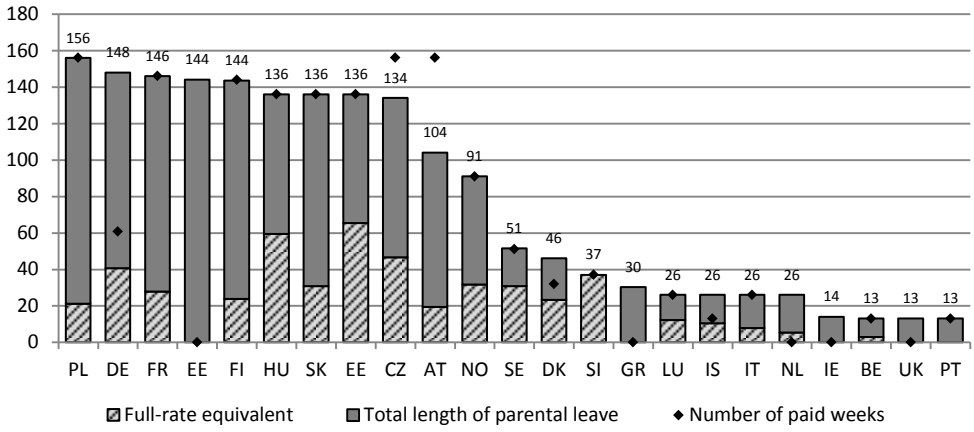
5 When the burden of care is shared between men and women and, consequently, leave is taken by both on an equal basis, norms on motherhood and fatherhood should be challenged and the gender inequality in the labour market should be mitigated. Several countries, under the impetus of the EU, have tried to expand fathers' take-up of leave through the introduction of daddy quotas (part of the leave is reserved for men on a take-it or leave-it basis). However, if no remuneration is stipulated and the financial incentive for men (which are often higher earners) to take up leave is low, parental leave entitlements might reinforce rather than change traditional gender roles. This would be an illustration of the unintended consequences of purposive policy action.

6 This is the result of the power vested onto the social partners by the 1992 Maastricht Treaty to negotiate agreements that could be translated into binding Directives. See Bleijenbergh et al. (2004).

parental leave for both men and women[7]. It was further specified that fathers as well as mothers should be individually entitled to leave, implying that leave should be non-transferable between partners. Despite these minimum standards, however, national policies continue to vary considerably, as the conditions and rules, as well as the choice between paid or unpaid leave provisions, were left to the discretion of the member states. Figure 1-3 highlights the substantial differences between European countries. It should be noted that, for the sake of simplicity, the figure is restricted to parental and home-care leave. Leave rules and conditions are complex insofar as eligibility, financing, duration and flexibility are concerned, and it would take us too far to compare all such details for this large set of countries. Interested readers are therefore referred to the excellent overviews by Ray et al. (2010), Jorens and Klosse (2008), and Moss (2013). Here I report on the situation as it was in 2008. This is an important caveat, as the 1996 Directive has since been replaced with the *2010 Parental Leave Directive* (2010/18/EU) which extends the minimum right to parental leave entitlement from 3 to 4 months. The new Directive was to be implemented by member states no later than March 2013.

[7] The United Kingdom did not sign the 1996 agreement and must only meet the maternity leave provisions.

Figure 1-3 Duration and remuneration of parental leave entitlements in European countries, 2008



Source: OECD, 2011. Note: only parental and home care leave, excluding maternity and paternity leave. The numbers denote the total length of parental leave in weeks.

Figure 1-3 shows that the length of (paid or unpaid) parental leave differs considerably between European countries, ranging from (almost) three years in Poland, Germany and France to approximately one year in Sweden and Denmark, and to the legal minimum of three months (in 2008) in Ireland, Belgium, the United Kingdom and Portugal. All countries thus have leave schemes that go beyond the minimum standards set by the EU Directive. A second issue is whether leave is paid or unpaid. In the context of the present study, it should be noted that unpaid leave is not attractive to low-paid working families, as they are often unable to afford forfeiting income by temporarily retreating from the labour market (Ray, Gornick and Schmitt 2010). In 2008, this was the case in the United Kingdom, Ireland, Greece and Spain (in the Netherlands, loss of income is compensated through a tax credit scheme). Twelve countries provide benefits covering the entire leave period, namely Poland, France, Finland, Hungary, Slovakia, Estonia, Norway, Sweden, Slovenia, Luxembourg, Italy, Belgium and Portugal. In Austria and the Czech Republic, the period of income support actually exceeds the total leave period, which is an incentive for low-paid mothers in particular to leave paid employment altogether (OECD 2011b). In Denmark and Germany, leave allowances are restricted to

part of the total period of employment-protected parental leave. Particularly in Germany, the difference in duration between paid and unpaid leave is substantial: parents can claim a leave allowance for only a third of the three-year leave period. As noted *supra*, most Central and Eastern European countries provide long periods of paid leave, with Slovenia, again, the exception.

A third element of cross-country variation in parental leave schemes consists in the generosity of leave allowances, as expressed in Figure 1-3 in full-rate equivalents (FREs). FREs represent the theoretical number of weeks during which parents are entitled full wage replacement. For example, if Country A has a leave period of 12 weeks and provides full wage replacement for the whole period, then its FRE amounts to 12 weeks. By comparison, Country B, which has the same leave period but replaces only 50% of the previously earned wage, has an FRE of only 6 weeks (0.5*12) (OECD 2011b). Using this method, I am able to assess in a straightforward manner the relative generosity of different countries' leave schemes. For countries with a flat rate benefit (Belgium, France, Germany, Sweden and the United Kingdom), or countries imposing income ceilings (Belgium, Germany, Norway, Spain, Sweden and UK), the FRE represents a percentage of the average wage in that particular country (Ray et al. 2010). As shown in Figure 1-3, only Slovenia provides full wage replacement throughout the leave period. Sweden and Denmark are also generous, with full wage replacement during approximately half of the leave period, as compared to just a third of that period in most other countries. In sum, despite the minimum standard for leave entitlements imposed under European legislation, cross-country comparison of leave schemes in EU member states indicates that great variation persists.

Although the EU has clearly contributed to the observed shift in the dominant policy discourse, it is hard (if not impossible) to determine unequivocally how much impact it has had on policies in individual member states. As social policymaking remains very much a national prerogative under the EU's subsidiarity principle, ultimately it is up to individual member states to decide in which direction family support measures should move. Obviously, in spite of EU initiatives to steer

national family policies in a certain direction, and notwithstanding that all European welfare states have crafted combined child benefit, leave entitlement and childcare policies to assist families with children, there continue to be obvious differences in terms of the structure, generosity and entitlement periods of the schemes concerned (Bradshaw 2006; Ferrarini 2006; Montanari 2000). To a large extent, these differences stem from past choices (path dependency), and they often reflect divergent ideological views on the relationship between family, state and market and on the role of women in society (Daly and Lewis 2000; O'Connor, Orloff and Shaver 1999). This holds in particular for child benefits, as will be discussed in the next section.

1.5.2 Old family support measures: child benefits

All European welfare state have child benefit schemes in place, but, as in the case of childcare and leave policies, there is considerable variety between these systems in terms of their design, structure and generosity. The specific design of child benefit schemes in individual countries often reflects past objectives and ideological assumptions: they may be income or non-income related, they may vary with the age or parity of the children, they may be taxable or non-taxable, the funding base may be contributory or non-contributory, and they may operate through the tax system or involve cash benefits, or both (Immervol, Sutherland and de Vos 2001; Kamerman 1980). Ferrarini, Nelson and Höög (2013) distinguish between six types of child benefits: universal child benefits, employment-based child benefits, income-tested child benefits, child tax allowances, child tax credits, and child tax rebates (although the latter type is applicable only in exceptional cases). Table 1-1 provides an overview of the structure of child benefit systems in European countries (as in June 2009).

Table 1-1 The structure of child benefit systems in European countries, 2009

	Cash				Tax
	Type	*Variation with number of children*	*Variation with age of the child*	*Supplements*	*Type*
AT	Universal	x	x	x	Allowance / Credit
BE	Employment	x	x	x	Allowance / Credit
BG	Income-tested		x		
CZ	Income-tested		x	x	Credit
DE	Universal	x			Allowance / Credit
DK	Universal		x	x	
EE	Universal				Allowance
ES	Income-tested		x		Allowance
FI	Universal	x		x	
FR	Universal	x	x		Credit
GR	Employment	x		x	Allowance / Credit
HU	Universal	x			
IE	Universal			x	
IS	Universal	x	x	x	
IT	Income-tested	x			
LT	Income-tested	x	x	x	Allowance
LU	Universal	x	x		
LV	Universal				Allowance
MT	Universal	x			
NL	Universal	x	x	x	
NO	Universal			x	
PL	Income-tested	x	x	x	Allowance
PT	Income-tested	x	x		Allowance
RO	Income-tested	x	x	x	Allowance
SE	Universal	x			
SI	Income-tested	x		x	Allowance
SK	Universal	x		x	Allowance
UK	Universal	x		x	Credit

Source: own composition on the basis of CSB MIPI database (Van Mechelen et al., 2011) and OECD (2012). *Note*: 'supplements' refers to additional benefits for specific types of families (large families, families with disabled child, single parents) or low-income families.

As regards cash benefits, it is clear from the table that the majority of countries have in place a universal child benefit system so that all families with children are entitled to (at least) a basic allowance. This is the case in Austria, Germany, Denmark, Estonia, Finland, France, Hungary, Ireland, Iceland, Luxemburg, Latvia, Malta, Netherlands,

Norway, Sweden, Slovak Republic and the United Kingdom. Benefit levels typically depend on the rank and age of the child, and additional supplements are granted for disabled children, and to lone-parent households, large families and low-income families. In other words, child benefit systems generally cover the variable needs of children (Immervol, Sutherland and de Vos 2001). In Belgium and Greece, working families are entitled to employment-based benefits rather than to universal non-income related benefits while non-working families usually receive income related benefits.

The majority of European countries combine cash benefits with tax benefits (Van Mechelen and Bradshaw 2013). Tax allowances are deducted from taxable income while tax credits are deducted from tax liability. Similar to cash benefits, tax benefits may be income-tested and they may vary with the age or the rank of the children concerned. Germany is the only country with a child benefit systems consisting mainly in tax measures: it replaced its universal cash benefit scheme with an optional model of tax credits and tax allowances in 1996. Families with children are taxed in the most favourable way, which in most cases involves tax credits. In other countries, the cash component prevails, although fiscal policy has gained in prominence over the past decades (Ferrarini et al. 2013). The architecture of child benefit systems is discussed in greater detail in chapter 4.

1.6 Outline of the dissertation

Starting from the three previously outlined premises and the proposed theoretical concept of the Matthew effect, this dissertation addresses two overarching research questions in an empirical and comparative way: 1) Who benefits from government investment in current family policy measures?; and 2) What are the consequences of government investment in family policy? Inspired by the work of Robert Merton, our answer to the first research question sheds light on the presence of Matthew effects, while answering the second question enables one to evaluate how effectively current family policy measures attain the

envisaged objectives. Although the number of countries included in the analyses presented in the various chapters of this dissertation differs depending on data availability, the main focus is on European welfare states (although chapter 6 also presents analyses for the US and Australia).

In Chapter 2, written in collaboration with Joris Ghysels, I set out to explore the first substantial research question: who benefits from new as well as old family policy measures? First, I explore how spending on the three distinct family policy schemes has evolved and consider whether family spending has shifted from old to new measures. Second, I tackle the question of how expenditures are allocated across different households in European societies. This is followed by an in-depth distributional analysis of two specific cases: Sweden and Belgium's Flemish region. The case studies of Sweden and Flanders are subsequently discussed more in detail in Chapter 3. This chapter, likewise co-authored with Joris Ghysels, presents a detailed account of childcare services and considers how the interplay between policy design, labour market attainment and childcare use is resulting in different patterns of social spending. These case studies shed light on the specifics of policy design, and provide insight into whether and how a particular design might counteract or reinforce the intended objectives of said policies.

The intended and unintended consequences of family policy measures are explored in the subsequent chapters. In Chapter 4, the focus is on the lower end of the income distribution. Co-written by Natascha Van Mechelen, this chapter uses model family data to gauge child benefit levels for families on different incomes and investigates the relationship between benefit design and effective child poverty reduction. This issue is related to the 'paradox of redistribution', which has been under siege in recent years. In Chapter 5, the focus shifts to childcare services. It is hypothesized that the objectives of childcare services under the social investment paradigm will not be effectively achieved in the presence of a Matthew effect. After discussing the basics of the so-called child-centred investment strategy, I investigate the social distribution of childcare service use in the EU27 based on EU-SILC

data. Furthermore, I explore some tentative explanations for the results obtained. Chapter 6, written in collaboration with Joris Ghysels, builds on the findings from Chapter 5. Drawing on the comparative social policy literature, I explore the determinants of inequality in childcare coverage for a broad set of countries. Given the lack of both prior theoretical understanding and comparative data, this analysis is exploratory in nature and tries to identify which institutional welfare state features may be associated with inequality in childcare use.

Finally, in Chapter 7, I adopt a panel approach to childcare use and public investment. Based on various cross-sectional waves of EU-SILC data (2006-2010) and spending data derived from the OECD SOCX database (2005-2009), I consider trends in spending, childcare use, and inequality in childcare use in an attempt to determine whether convergence has taken place. Furthermore, I empirically investigate the relationship between spending and childcare use as well as between spending and inequality in childcare use. A more dynamic account of childcare and inequality should provide better insight into how public spending impacts on inequality in childcare coverage in the era of social investment. I conclude with a discussion of the results obtained, some suggestions for further research, and a general assessment of the relevance of respectively old and new forms of family policy to the future of the social investment strategy.

CHAPTER 2

WHO BENEFITS FROM INVESTMENT POLICIES?*

2.1 INTRODUCTION

Family policy is a constituent part of the traditional social policy mix that has been subject to profound changes in terms of both scope and substance following the emergence of the social investment state. Initially in the post-War era, most measures in the field of family policy were entirely income-oriented and served the main purpose of making society share in the monetary cost of child raising and ensuring children's well-being. Working from diverse ideological foundations, European welfare states crafted a combination of cash benefits (e.g., child benefits, maternity benefits) and fiscal measures (e.g., tax allowances, derived rights) (Ferrarini 2006; Gauthier 1999; Montanari 2000). The design of such family support measures was geared entirely toward coping with the "old" social risk of child-rearing and served no activation agenda whatsoever.

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In the past three decades, however, the family policy mix has undergone a remarkable transformation. Its traditional pillar of "passive" cash measures has been complemented with "activating" services and measures, such as early childhood education and care (ECEC) services and parental leave schemes, designed to reconcile work and family life, to foster female employment, and to promote child development, all of which are important pillars of the social investment idea (e.g. Bonoli 2005; Esping-Andersen 2008). More generally, under the umbrella of European-led initiatives aimed at boosting employment rates and enhancing competitiveness and growth, family policy (and investment in young children) has come to be seen as a "productive factor" and an integral part of employment-centered social policy strategies (European Commission 2000; Lewis 2009). It is often assumed that this emphasis on activation and the accompanying change in discourse has led to a shift in government expenditures from "old" to "new" family measures (Cantillon 2011).

This chapter considers the outcome of government investment in the present-day family policy mix, defined as policy measures aimed at families with young children (under 6 years old). The focus is on the three mainstays of family policy, representing old as well as new forms of family support: ECEC (briefly: childcare) services, parental leave schemes, and child benefits. The key question addressed is *who benefits from changing government expenditures on family policy?* More specifically, we want to unravel (1) whether the assumed shift in government expenditures for family policy has actually occurred; and (2) how expenditures are allocated over different households in European societies. Our research question is fueled by growing concern over the distribution of family-oriented benefits under activating policy measures (Esping-Andersen 1999; Ghysels and Van Lancker 2011; OECD 2011b; Van Lancker and Ghysels 2012). Traditional cash programmes of family support (child benefits) redistribute income between households with and without children and generally entail elements of vertical distribution from high to low incomes in order to ensure children's well-being in families with more limited economic resources(Immervol,

Sutherland and de Vos 2001; Wennemo 1992). It is, however, much less evident which households are the beneficiaries in the case of parental leave and childcare services. Considering their underlying employment logic, it can be hypothesized that government expenditures for those measures will first and foremost benefit families with two earners. Given the fact that dual earnership is not equally dispersed among income strata, with higher educated women being more often employed and living in a dual earner household (Cantillon et al. 2001; Evertsson et al. 2009), the implication is that social expenditures for activating family support are biased against the lower incomes and that government expenditures will flow first and foremost toward dual earner households, which have more financial resources at their disposal and thus greater opportunities to ensure their children a better future. More generally, if policy measures are grafted on an underlying logic of (previous) employment, then government investment will favor those already better-off. In this respect, it was claimed in a recent European Commission review on employment and social developments in Europe that "*the resources devoted to early childhood education and childcare (ECEC) services are seen to benefit the rich more than the poor*" (European Commission 2011b). This phenomenon has been designated a "Matthew effect," after the Gospel of Matthew (see chapter 1). Our analysis aims to demonstrate whether the above considerations hold true and, if so, whether this Matthew effect may be an unavoidable feature of current family policy.

The next section investigates whether a shift in social expenditures has taken place from old to new measures. Subsequently, we study the variable use of the aforementioned measures by different income groups using European-wide survey data. This is followed by an in-depth distributional analysis of two specific cases: Sweden and the Flanders region of Belgium. We end this chapter with a discussion of the results and their implications for social investment policies related to families with young children.

2.2 PRODUCTIVE FAMILY POLICY IN THE EUROPEAN UNION: SCOPE AND EVOLUTION

Chapter 1 described how social policy became embedded in an employment-driven logic and why accommodating responsibilities at work and at home became an important policy issue at European Union (EU) level since the early 1990s (Council of the European Union 1992; Lewis 2006a; Mätzke and Ostner 2010). In a nutshell: Family measures are expected to contribute to increasing female employment in conjunction with broader EU labour market measures; their potential for enhancing gender equality and equal opportunities, both in the domestic sphere and in the job market, has been watered down and encapsulated within the employment objective.

In the field of family policy, the EU promoted various measures for removing disincentives to female employment and balancing paid work and family duties. A first lever is the provision of childcare services. It is generally considered an efficient labour market instrument that removes barriers to labour market participation by mothers, while at the same time contributing to gender equality and investment in young children (Lewis, Campbell and Huerta 2008; Vandenbroucke and Vleminckx 2011). Women still face the main burden of child care, and, without the possibility of externalizing care duties (be it through informal or formal channels), they are often unable to engage in paid employment. In the absence of decent care provisions, women often cut back on their working hours or quit the labour force altogether to take care of their (pre-school-age) children (Ferrarini, Nelson and Höög 2013; Uunk, Kalmijn and Muffels 2005). Indeed, it has been shown that the availability of formal care services in particular is a strong determinant of female labour supply in industrialized countries (Jaumotte 2003; van der Lippe and van Dijck 2002). Child care became an official EU policy issue with the adoption of the 1992 Childcare Recommendation, followed by the adoption of explicit targets to provide child care by 2010 to at least 33% of children under 3 years old and to at least 90% of children between 3 years old and mandatory school age at the Barcelona

Summit in 2002 as part of the Lisbon Strategy. A new benchmark for at least 95% of children between 4 years old and mandatory school age to participate in child care was set in 2009. At present, child care is seen as a means to reach the EU2020 targets for employment, early school leaving, and poverty (European Commission 2011a).

Parental leave is a second important aspect of EU concern for the reconciliation of work and family life. Leave entitlements interact with childcare services, because they enable parents to interrupt employment to care for their children, which reduces the need for external childcare services during that period. Nevertheless, parental leave and childcare service provision are both activation-oriented. Leave schemes ensure parents' bond with the labour market by maintaining the contractual link between employer and employee during the latter's temporary retreat from work (Ghysels and Van Lancker 2011). However, their employment effect is harder to assess than that of childcare services, because that depends on the length of the leave, the conditions of entitlement, and the generosity of the benefit (Gornick and Hegewisch 2010). Short periods of particularly well-paid leave have been shown to be beneficial to female employment rates: Young women are encouraged to strengthen their labour market attachment before childbirth through the knowledge that they will incur only minor income loss during their leave and that they will be able to safely return to their jobs subsequently (De Henau, Meulders and O'Dorchai 2007; Del Boca et al. 2007). However, longer leave from the labour market provides women with fewer incentives to start a career and fewer postleave career prospects (Gornick, Meyers and Ross 1997; Morgan and Zippel 2003b). The exact tipping point is rather unclear: Jaumotte, for instance, found that the impact of parental leave on employment becomes negative beyond a duration of 20 weeks, while others assert that the optimal leave period may be more than 40 weeks (Jaumotte 2003; OECD 2011b). If remuneration is too low or even nonexistent, there are few incentives for taking leave, especially for low-income families who cannot afford to give up earnings (Fagan and Walthery 2007). Like childcare services, leave is a potentially powerful instrument to ensure gender equality in both care arrangements and on the labour

market (see Ray, Gornick and Schmitt 2010for further reading on this issue). Generally, four types of leave entitlements are available in European welfare states: maternity, paternity, parental, and home-care leave (OECD 2011b). In contrast to the soft targeting in the case of childcare services, the EU has influenced national policymaking on leave rules in a legislative way by introducing legally binding Directives. Examples are the 1992 Pregnant Workers Directive (92/85/EEC), which stipulated that workers who have recently given birth or who are breastfeeding should be granted the right to maternity leave of at least 14 continuous weeks with continuous receipt of either their salary or an adequate allowance, and the 1996 Parental Leave Directive (96/34/EC), which stipulated a minimum right to three months of parental leave as an individual entitlement for both men and women. In 2010, the 1996 Directive was revised (2010/18/EU) *inter alia* extending the period of leave to four months.

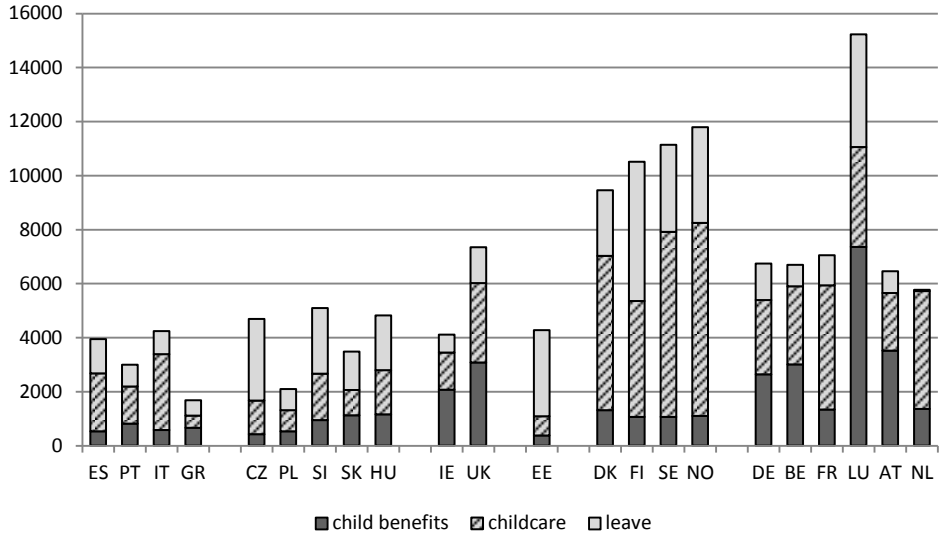
A final policy measure we incorporate into our comparative exercise is child benefits, which constitute a more traditional pillar of family policy. All European welfare states have child benefit schemes, but, as with childcare and leave policies, there are considerable differences in design, structure, and generosity. Previous research on the history and evolution of child benefit systems has shown them to be shaped by ideological considerations and gendered views on society and the role of men and women as breadwinners and/or homemakers. Hence, they may serve different purposes (Gauthier 1999): (1) as a complement to household income so that mothers can stay at home and take care of the children; (2) to encourage parenthood and increase fertility; or (3) as a means of horizontal and/or vertical redistribution in response to a concern for the well-being of children. The particular design of the system of child benefits in the various countries often reflects such historical objectives and ideological motives: They may be income or nonincome related, variable with the age or parity of the children, taxable or nontaxable, have a contributory or noncontributory financial base and operate through the tax system, via cash benefits, or a combination of the two (Immervol, Sutherland and de Vos 2001; Kamerman 1980).

One of the assumptions underlying this chapter is that the transition from the traditional welfare state to the social investment state has coincided with a shift in expenditures from passive cash benefits to activating family support. Ultimately, this is an empirical issue. How does the hodgepodge of family policy measures of different origins, with divergent ideological foundations and varying modalities translate into government expenditures, our main area of interest? Moreover, given the above-described shift in the dominant EU policy discourse to an emphasis on work/family reconciliation and activation, is there a parallel evolution to be observed from old to new family support measures?

Figure 2-1 shows total gross government spending on child benefits, parental leave, and child care for 21 EU Member States and Norway compiled from the OECD Social Expenditure database (SOCX). We also take government spending via the tax system (by means of tax credits or tax allowances) into account, which is an often overlooked fact in comparative spending exercises (Adema, Fron and Ladaique 2011).

The amounts of spending are made comparable across countries and over time by converting them into purchasing power parities (PPPs) using the EU27 average as basis. To ensure that differences in spending between countries are not driven by demographics, we control for the number of children between 0 and 6 years of age for child care and parental leave spending, and for the number of children between 0 and 18 years of age for spending on child benefits. In effect, what is shown in Figure 2-1 is the average spending per child on the three mainstays of family policy in 2009, while Table 2-1 shows the evolution of average spending per child for the three measures between 2001 and 2007 and between 2007 and 2009.

Figure 2-1 Average net government spending on child benefits, parental leave, and childcare, per child in €PPP, 2009



Source: own calculations on OECD SOCX database and Adema et al. (2011). No information available for Bulgaria, Romania, Latvia, and Lithuania. *Note*: childcare includes spending on day-care services, pre-primary (ISCED0) education and, if applicable, tax credits for childcare. Leave includes maternity as well as paternity and parental leave. Child benefits include benefits in cash and benefits working through the tax system.

Although diversity is without doubt the main feature of a cross-country comparison of spending on family policy, certain patterns emerge. In the Southern welfare states, spending on family policy is comparatively low and heavily concentrated on child care (nurseries for 3–6-year-olds in particular). The highest overall spending is observed in the Continental and Nordic countries. In the former, child benefits are relatively more important (with Luxemburg as emblematic example), while in the latter the focus is on productive family policy (childcare services and parental leave). This mirrors choices made in the past.

The Anglo-Saxon countries differ from each other. While spending in Ireland is comparatively low and focused on child benefits, the UK spends above average, emphasizing childcare services. Although the former Socialist economies share a history of extensive day-care provisions for pre-school-age children combined with generous and extensive leave schemes, today only the latter is clearly reflected in the

expenditure data. Czech Republic, Slovenia, Estonia, and Hungary only devote a minor share of family policy expenditures to childcare services, although they have retained their focus on leave entitlements and display a rather high average level of spending per child. Poland finds itself at the bottom of the league table with total spending at Mediterranean level.

Table 2-1 Change in government spending on three family support measures per child in €PPP, 2000-2007-2009, European countries.

	Child benefits		**Leave schemes**		**Childcare services**	
	Δ01-07	*Δ07-09*	*Δ01-07*	*Δ07-09*	*Δ01-07*	*Δ07-09*
Spain	+313%	-2%	+105%	+31%	+40%	+8%
Portugal	+35%	+36%	+120%	+25%	+45%	+11%
Italy	+15%	-1%	+52%	+4%	+20%	-1%
Greece	+43%	25%	+52%	+53%	+2%	-5%
Czech R.	-29%	-50%	+196%	-16%	+41%	+10%
Poland	+245%	-10%	+43%	+27%	+139%	+17%
Slovenia	+18%	+6%	+27%	+34%	+15%	-10%
Slovak R.	+113%	+11%	+56%	+9%	+47%	10%
Hungary	+68%	+3%	+81%	+8%	+49%	0
Ireland	+103%	+9%	+176%	+17%	+83%	+6%
UK	+88%	+12%	+507%	-16%	+56%	-9%
Estonia	+50%	+3%	+170%	+54%	+226%	+2%
Denmark	+12%	+3%	+44%	+5%	+21%	+3%
Finland	+11%	-1%	+122%	+8%	+36%	+9%
Sweden	+16%	-6%	+54%	-1%	+71%	+2%
Norway	-3%	-8%	+19%	+3%	+124%	+16%
Germany	+82%	+4%	+46%	+11%	+58%	+20%
Belgium	+21%	+2%	+26%	+3%	+28%	0
France	+13%	+4%	-9%	-1%	+22%	0
Luxemburg	+32%	+33%	+39%	+9%	+48%	+7%
Austria	+36%	+7%	-49%	+7%	+48%	+28%
Netherlands	+28%	+21%	+192%	+17%	+133%	+26%
Mean	+37%	+9%	+61%	+8%	+50%	+7%

Source: Own calculations on OECD SOCX and Adema et al. (2011).

Finally, the data shed light on the question of whether government spending on new family policy measures, that is, employment-related policy, increased during the Lisbon period. Table 2-1 shows changes in government spending per child in €PPP for the period 2001–2007–2009. It is immediately clear that, generally, *spending on all three measures increased* in the pre-crisis period (2001–2007). Only Czech Republic (−29%) and Norway (−3%) have seen a decline in spending on child benefits, and spending on leave declined in France (−9%), Luxembourg (−5%) and Austria (−49%). All other countries report increasing budgets for child benefits, leave schemes, and childcare services. Eight countries have more than doubled their budget for leave (Spain, Portugal, Czech Republic, Ireland, the United Kingdom, Estonia, Finland, and the Netherlands); four countries their budget for child benefits (Spain, Poland, Slovak Republic, and Ireland); and four countries their budget for child care (Poland, Estonia, Norway, and the Netherlands).

For the sake of clarity, we do not discuss the evolution of government spending in every particular country. Yet we may conclude from the data that the assumed shift in government expenditures for family policy has not occurred: Although spending on new family measures has increased, the same holds (although to a somewhat lesser extent) for spending on old measures. In other words, spending on leave and child care has not led to a crowding out of spending on child benefits.

Recent OECD data allow some preliminary light to be shed on the evolution of spending in the first years of the crisis. In several countries, spending on child benefits came to a halt or even decreased (Czech Republic, Poland, Sweden, and Norway) while in others spending did increase but at a slower pace than in the pre-crisis period (exceptions: Portugal, Luxemburg, and the Netherlands). A similar picture arises for spending on leave schemes (cuts in Czech Republic, the United Kingdom) and childcare services (cuts in Greece, Slovenia, and the United Kingdom). Generally speaking, the data show that spending on family policy slowed in the period 2007–2009.

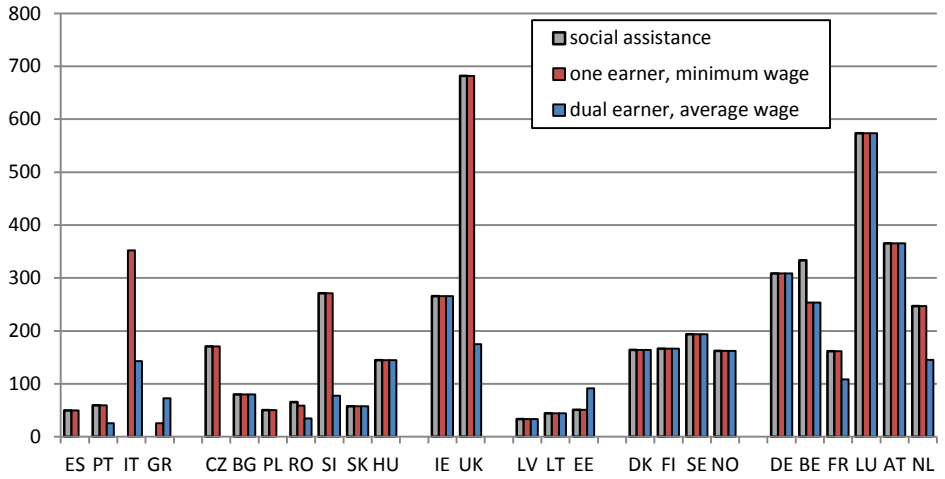
2.3 THE FAMILY POLICY TRIAD: EXPLORING THE DISTRIBUTION OF ITS USE

In the previous section we clarified total spending, its recent evolution, and policy background. Yet this chapter is not just about spending on family policy, but also about its distribution among families with children. This section explores the social distribution of the use of existing family policy schemes as a first step in determining who benefits from public investment in these areas. Later on, we will complete the picture by coupling usage with government spending. It will be argued below that the interaction of use and government funding is complicated by the modus operandi of the various policy measures. Therefore, the detailed analysis of the social distribution of public spending on family policy will be limited to two countries. The Europe-wide comparison of family policy measure usage in this section thus concludes the European part of our analysis.

2.3.1 Child Benefits

In order to gain insight into the social distribution of child cash benefits in Europe, and hence grasp the relative generosity of child benefits toward different income groups, use is made of the "model families matrix method," which allows cross-country comparisons for different "model family" types at different earnings levels. Figure 2-2 compares a low-income family (single earner, working at minimum wage) with an average-income family (dual-earner couple, both working at average wage) and a couple living on social assistance. For the sake of comparability, amounts have been converted into €PPPs, so that the cross-country assessment takes due account of price differences.

Figure 2-2 Child cash benefit levels for families on social assistance and low income families compared to average income families, European countries, €PPP, 2009



Source: CSB MIPI data (Van Mechelen et al. 2011). Couples with two children (7 and 14yrs old). If the bar is not shown, the family type does not receive any cash benefit (see Spain, Italy, Greece, Czech Republic and Poland).

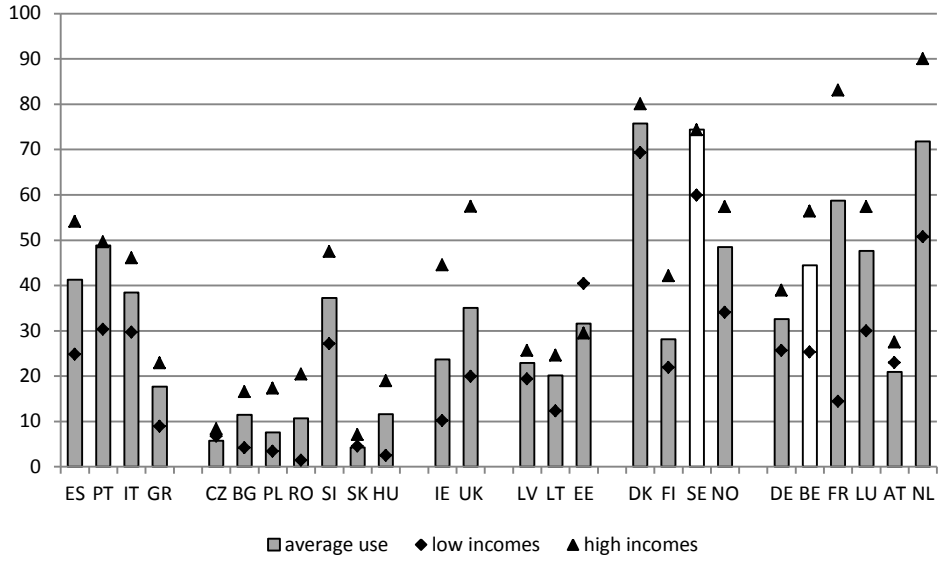
In 11 of 26 countries under study, the child benefit package takes account of the higher needs in low-income families, while in others child benefits are provided on a universal basis (at least for the model families under consideration). Only in Greece and Estonia are child cash benefits biased against the lowest incomes, while in Italy the benefit system is biased against the non-employed. The high overall level of generosity in the Continental and Liberal welfare states illustrates once again its importance in these countries, as reflected in Figure 2-1. The Baltic and Southern European countries have the lowest levels (except Italy, with its system of employment-related yet generous benefits for low incomes), while the Central and Eastern European countries display considerable variation. All in all, child benefits are in most countries not linked directly with employment and are awarded on a universal basis. Additionally, several countries have made room for "targeting within universalism" (Skocpol 1991): degrees of selectivity offering additional resources to low-income families within a universal framework. Hence, government investment in these measures can be expected to be either

distributionally neutral or allocated more than proportionally toward low-income families (assuming complete take-up).

2.3.2 Childcare Services

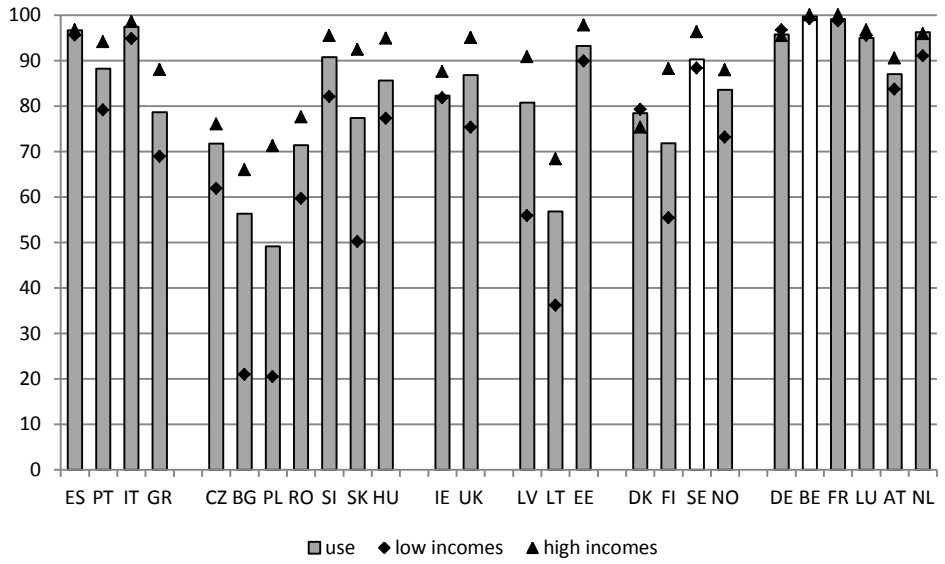
To gauge the social stratification of the use of childcare services in European countries, the households in our sample (households with a youngest child under the age of 6 years) were divided into five income groups (quintiles). The average outcome is compared with results for the highest and lowest income groups in Figure 2-3 and Figure 2-4, respectively, for the youngest children and for pre-school-age children. Overall, the pattern of care use is socially stratified: In almost all countries, the higher-income households (represented by triangles in the figures) make far more use of formal care services than the lower-income households (diamonds in the figures). Obviously, these findings should be interpreted in conjunction with the labour market participation of mothers in the different social groups. This is certainly the case in Belgium, for example, where mothers living in low-income households are more likely to be inactive than mothers in higher income brackets, and this pattern is reflected in the social distribution of formal care use (chapter 3). Nevertheless, the magnitude of the inequality in Belgium is striking: In spite of the high average use of child care for the youngest children in general, around 60% of the households in the highest income quintile make use of formal care services compared to only 25% of the households in the lowest income quintile. Countries with similar unevenly distributed care use patterns are France, the United Kingdom, Ireland, the Netherlands, Luxemburg, and Spain.

Figure 2-3 The social distribution of childcare use for children aged 0-2 by income group, SILC 2009, European countries



Source: own calculations on EU-SILC 2009.

Figure 2-4 The social distribution of childcare use for children aged 3-5 by income group, SILC 2009, European countries



Source: own calculations on EU-SILC 2009.

Furthermore, all countries with low rates of childcare use display a very unequal distribution among households (with Latvia as the only exception). In contrast, Denmark and Sweden succeed in providing extensive care services while almost equalizing the social distribution of opportunities, which to an extent reflects the inclusive childcare policies pursued in these two countries, although it is also related to their high female employment rates. Indeed, the employment gap between high- and low-skilled mothers is much smaller in Sweden (Evertsson et al. 2009) than, say, Belgium (Cantillon et al. 2001). Be that as it may, the Danish and Swedish pattern of childcare use is reminiscent of basic arithmetic: Equal (universal) access for all social groups must be ensured in order to reach high overall levels of formal care use, which is an important lesson in the light of the European ambitions laid down in the Barcelona targets.

In many countries, the pattern for the 3-to-5-year-old age group runs parallel to that for the youngest, though at higher average levels of use. In most countries, children between ages 3 years and 5 years are served by the school system. Often this entails a shift from the policy sphere of social welfare to education, which commonly results in a clear break in the usage pattern. In Spain and Italy, for example, childcare services are used by about 40% of the youngest (an intermediate position within the EU), whereas kindergarten is attended by almost all children aged 3 years to 5 years (making them top-ranking countries within the EU). As a corollary, the uneven social distribution of child care for the youngest is not found among the older group of children. The same gap-closing pattern is found in the Continental welfare states (Belgium, France, Germany, Luxembourg, and Netherlands) and—albeit to a lesser extent—in Ireland and the UK. Interestingly, however, gap closing is not general, even though an expansion of use is. The graphs illustrate that social inequality among children aged 3 years to 5 years is larger than among the youngest in the Slovak republic, Latvia, and Estonia.

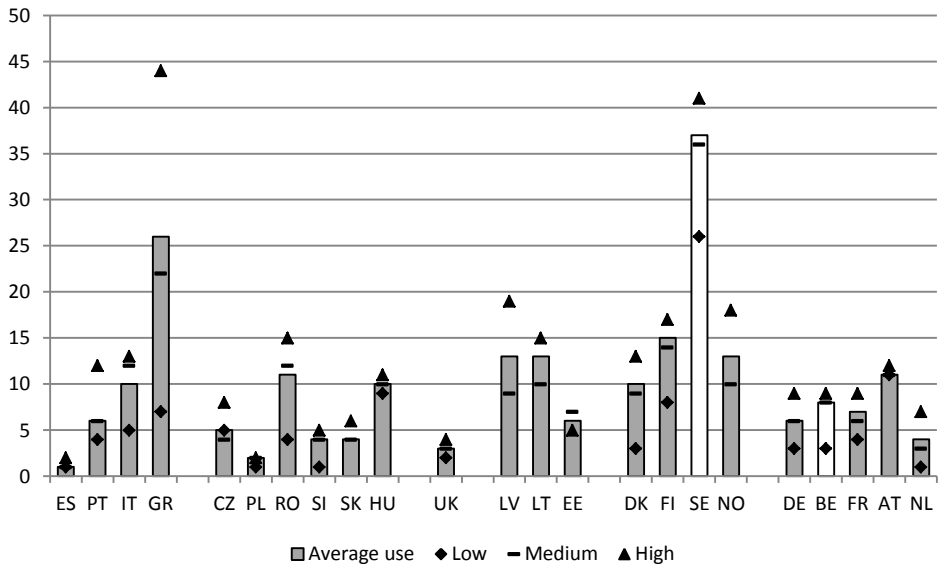
All in all, the above shows that social inequality in childcare use is the norm rather than the exception in European countries. Moreover,

we are reminded of a basic lesson: An equal distribution is hard to achieve without high levels of service use.

2.3.3 Parental Leave Entitlements

The empirical data for parental leave entitlements are drawn from the 2005 ad hoc module of the EU Labour Force Survey (EU-LFS). This module offers uniquely comparable information on the use of parental leave, but as a source it also has some drawbacks. First, no income data is available in the publicly available version of the EU-LFS. Therefore, we limit our distribution analysis to educational groups instead of income groups. Second, to ensure that data were available for all countries, the sample had to be widened to working women with a child under the age of 15 years. Still, a table for a sample of families with children under the age of 3 years for a selection of countries (excluding Denmark, Sweden, Norway, Finland, and France) does confirm the results.

Figure 2-5 The educational distribution of remunerated parental leave among families with a working mother and at least one child under the age of 15, European countries, 2005



Source: own calculations on EU-LFS 2005. Cells with fewer than fifty observations are not shown, resulting in the omission from the table of Luxembourg as well as the group of low-skilled mothers for several countries.
Selection: women having a job at the moment of the interview and living together with at least one own or partner's child younger than 15.
Note: Paid parental leave refers to all types of remunerated parental leave schemes, including both full-time and part-time leave and leave taken by either one or both parents during the last twelve months. Bulgaria and Ireland are not included, because there was no paid parental leave scheme in place in these countries in 2005. Other countries lacking a paid parental leave scheme, such as the UK and Spain, are included because a number of respondents reported some kind of remuneration (e.g. specific regulations in the public sector, following a collective agreement or with a particular employer).

The distributional picture shown in Figure 2-5 is quite homogeneous, despite the considerable differences in generosity of parental leave schemes. All significant divergences between educational groups point in the same direction: Households with a low-educated mother use parental leave opportunities to a smaller extent than other households do. As in the analysis of childcare services, a second observation applies: Some countries do not exhibit an unequal distribution at all. In Spain, Poland, and the UK, the reason for this outcome is quite obvious: The overall use of parental leave is almost zero. In these countries, parental leave is either unpaid (Spain and UK), or an income test applies to what is, moreover, a rather low benefit (Poland).

In Austria and Hungary, a relatively high level of take-up is equally dispersed among the social strata. Characteristics of the leave system do not offer an immediate explanation for the relative attractiveness of leave to low-skilled mothers in these countries. Leave is paid at a flat rate in Austria, but the payment period can exceed the leave period (which is an attractive option for low-income families), while in Hungary, for example, it covers 60% of the previous wage for a period of more than two years (OECD 2011b). Yet, the specific characteristics of the leave entitlements are not the only factor determining take-up. Other factors such as the availability of child care, employment opportunities for women, and cultural aspects, are equally important (Gornick and Hegewisch 2010).

Moreover, the equalizing logic we observed in the childcare sector is not reproduced in parental leave. None of the countries with high take-up rates display an equal distribution across educational groups. The difference between high- and low-skilled working mothers is statistically significant among the three countries with the highest average take-up rates, for example (Sweden, Finland, and Greece). Yet, it should be stressed that take-up of parental leave is typically much lower than childcare coverage. Hence, the mathematical rule tending toward an equal distribution with rising coverage rates does not come into play yet.

It is worth reiterating that Figure 2-5 is limited to working mothers only. This demonstrates that even among the selected group of employed low-skilled mothers, parental leave is not used to the same extent as among the high-skilled (with the exceptions noted above). Consequently, inequality in the use of parental leave is not only the result of unequal labour force participation but also a consequence of inequalities in the effective access to parental leave within the working population. Compared with the analysis of the use of childcare services, Figure 2-5 also shows that the Nordics do not always achieve equal distributions. Although childcare use is hardly skewed against the low-skilled in Denmark, Norway, and Sweden, the use of parental leave clearly is.

2.4 The social distribution of family expenditures: the case of Sweden and Flanders (Belgium)

The above analyses suggest that the more recent work-family reconciliation measures (childcare and leave schemes) may have distributional effects that countervail the redistributive or distributionally neutral design of long-standing income protection measures such as child benefits. Yet, the interaction between the measures and their resulting overall effect (i.e., the presence of a Matthew effect) cannot be ascertained on the basis of the use of those measures only. For instance, if one observes that the use of child care is

unequally distributed among households with young children in some countries but not in others, it does not necessarily follow that government expenditures are unequally distributed. The distribution of government expenditures on policy measures depends not only on their use or take-up, but also on the modus operandi. In the case of child care, this includes inter alia the out-of-pocket costs and the subsidizing method of (public or private) childcare services. In the case of parental leave, it depends on the benefit levels, be they income-related or not, the leave period duration, entitlement conditions, etc. For child benefits, due account should be taken of whether the system is universal or means-tested, how it incorporates age, rank, and number of children, and the extent of targeting. Dysfunctions in any of these aspects can induce a Matthew effect, so that detailed data and level of analysis are required to gain genuine insight. For this reason, we concentrate on two case studies.

In the following paragraphs, the focus is on Sweden and the Belgian region of Flanders, which accounts for approximately 60% of the country's population. The purpose is to arrive at a fine-grained analysis of the social distribution of subsidized childcare services, parental leave entitlements, and child benefits.[8] The descriptive overview above indicated that child care and parental leave use is heavily biased against the lowest incomes in Belgium, while this is only the case for parental leave, not child care, in Sweden. Child benefits are expected to be targeted more at the lowest incomes in Belgium, while they are assumed to be distributionally neutral in Sweden. In what follows, we investigate whether these patterns of entitlement, use, or take-up translate into a Matthew effect, in other words, an unequal allocation of government investment in these policies.

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8 The focus is on the Flemish community rather than on Belgium as a whole, because family policy has been devolved to the communities. When relevant (i.e., in the case of overlapping competences), reference is made to Belgium as a whole.

2.4.1 Data and Methodology

The proposed analysis of the social distribution combines administrative data on government outlays with detailed data from national surveys containing information on usage and parental contributions (for child care) and on benefit receipt (for child benefits and parental leave). For Flanders, we rely on the 2005 Flemish Families and Care Survey (FFCS), while for Sweden we draw on the Level-of-Living Survey (LNU) Wave 2000 (relating to income for the year 1999), complemented by register data on benefits drawn from the Luxembourg Income Study (LIS) database. All data on government expenditures on relevant policy measures are derived from official and administrative sources and recalculated to reflect government efforts to reach the group of young children (0 to 6 years of age) that the present chapter is concerned with. For the sake of clarity and conciseness, the calculation of the amounts cited is not shown, but details can be obtained from the authors upon simple request.

One should also refrain from making simple comparisons between Sweden and Flanders in so far as the total budget for a particular measure is concerned. Differences in volume of the total budget do not necessarily reflect genuine differences in policy choices or total government investment, but might simply be occasioned by compositional differences (population size, number of children). Similar to Figure 2-1 and Table 2-1 above, we control for the number of children in a particular household to make sure that potential differences between income groups do not stem from differences in the number of children across these social groups. In effect, the graphs presented below show the amount of government investment received by an average child in five different income groups. As such, the results reflect the joint outcome of use or take-up of a measure (access, perceived affordability) and its funding (proportion of public support). Hence, if differences are observed between the funding received by an average child in different income groups, these may stem from variation in both usage and mode of operation (government funding rules,

legislation, entitlements), as will be discussed for every policy measure separately.

Finally, it should be noted that the amounts relied upon are based on the year 2000 for Sweden and the year 2005 for Flanders, but in order to allow comparison, the Swedish amounts have been uprated to the year 2005 and converted into €PPPs. Still, although great care is taken to maximize comparability, the difference in policy setup does not allow very precise comparisons. The focus is rather on the patterns of social distribution constituting the central question addressed in this contribution: Which income groups benefit from government investment in the three mainstays of contemporary family policy?

2.4.2 Child Benefits

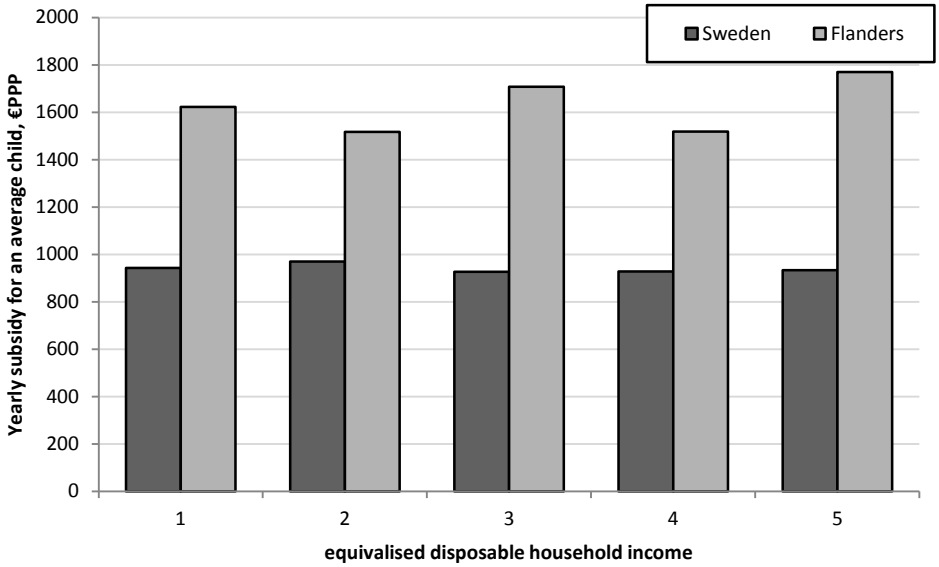
Let us first consider (cash) child benefits. In Belgium, child benefit rights for employees were first introduced in 1930 and the system has expanded ever since (Cantillon and Goedemé 2006). Today, the system encompasses child benefits (*kinderbijslag*) and childbirth allowances (*kraamgeld*). Hence, Flemish families with children may claim universal child benefits (with supplements according to age and rank of the child), additional child benefits for vulnerable families (e.g., single or unemployed parents) and one-off allowances at childbirth (or at the moment of adoption) from the federal state and municipal authorities. In 2005, the total government budget for this combined scheme for children aged 0 to 5 years in the region of Flanders amounted to EUR 686 million, which works out to EUR 1,821 per child per year.

In Sweden, prior to the 1930s, support measures for families with young children consisted mainly of tax subsidies. A universal system of child benefits for all parents (*barnbidrag*) was only introduced in 1948 as a flat-rate fee that did not vary according to rank or age of the child. This principle has been retained to date. However, the universal benefit was complemented in 1982 with an additional benefit for large families of three or more children (*flerbarnstillägg*), the rationale being that full-time work is hard to maintain for mothers with more than two children. As in Flanders, parents are entitled to cash childbirth allowances, but

these are provided under the (insurance) scheme of parental leave, which will be discussed in the next section. In 2000, the total Swedish budget for child benefits for children aged 0 to 5 years amounted to EUR 660 million, or roughly EUR 1,135 per child per year. The difference in average public investment per child between Sweden and Flanders corresponds with the different expenditure structures observed in Figure 2-1: Belgium (and thus Flanders) spends most on cash benefits and least on parental leave, while in Sweden childcare services and parental leave schemes represent a much more substantial item of public expenditure than do child benefits.

All in all, given the design of the Swedish system, government spending on child benefits may be expected to be quite evenly distributed among the different income groups. In Flanders, on the other hand, expenditures are expected to be targeted more at the lowest incomes (given the system of supplementary benefits). Figure 2-6Figure shows that the public subsidy for an average child in the five income groups indeed follows the expected pattern in Sweden, but surprisingly not so in Flanders. In reality, the supplementary benefits are highly selective and cover only a small proportion of the population. Moreover, families in the lowest income quintile tend to have more children than other households. Combined, these characteristics explain why there is no statistically significant difference between the social groups in terms of average child benefit amounts. The same mechanisms are at play in Sweden: Although lower income families tend to be larger families (and hence should be the main beneficiaries of the supplementary benefit for large families), the weight of the benefit is too insignificant to show up in the results. In sum, in both Sweden and Flanders, children receive on average a more or less equal share of child benefit expenditures, regardless of their parents' financial resources.

Figure 2-6 Social distribution of government investment in child benefits



Source: own calculations.

2.4.3 Parental Leave

In 1974, Sweden abolished its system of maternity leave and replaced it with a system of remunerated parental leave (*föräldrapenning*). It was the first Western democracy to impose a strictly gender-neutral programme of this kind (Ferrarini 2006). Since 1989, the leave period has been 360 days per child, with an income replacement of 80% of previous wage up to a certain earnings level, followed by a flat fee during 90 days (guaranteed minimum). Eligibility depends on the payment of national insurance contributions through employment for a minimum of 240 consecutive days before childbirth. Those who do not meet this requirement are entitled to the guaranteed minimum for the full period. The benefit may be taken up by the mother from 60 days prior to confinement onward, and by either of the parents up until the child reaches the age of eight. Additionally, fathers are entitled to 10 days of leave ("daddy days," *pappadagar*) under the same income replacement rate as parental leave, to be taken up any time during the first 60 days after childbirth.

In 1994, a so-called "daddy month" was introduced. This is a period of four weeks within the total leave length earmarked for fathers on a use-or-lose basis, with the explicit aim of increasing gender-equality in childrearing (Duvander, Ferrarini and Thalberg 2006).[9] Presently, 60 days of the leave are reserved for either parent, and the remaining time may be divided between the parents as they see fit. The system is very flexible: It can be used partially by both parents, allowing both to work and be on leave on the same day, and parents can opt to receive only part of the benefit even if on full-time leave in order to extend the total leave period. In effect, most Swedish children stay at home with a parent for approximately a year, regardless of household income or labour market status of the parents. Finally, parents are entitled to 60 days of "temporary parental leave" per child (below 12 years of age) per year in case the child or child minder is sick. The latter benefit is not included in the analysis. In 2000, total government spending on parental insurance and the additional "daddy days" amounted to EUR 1,272 million, an average of EUR 2,187 per child.

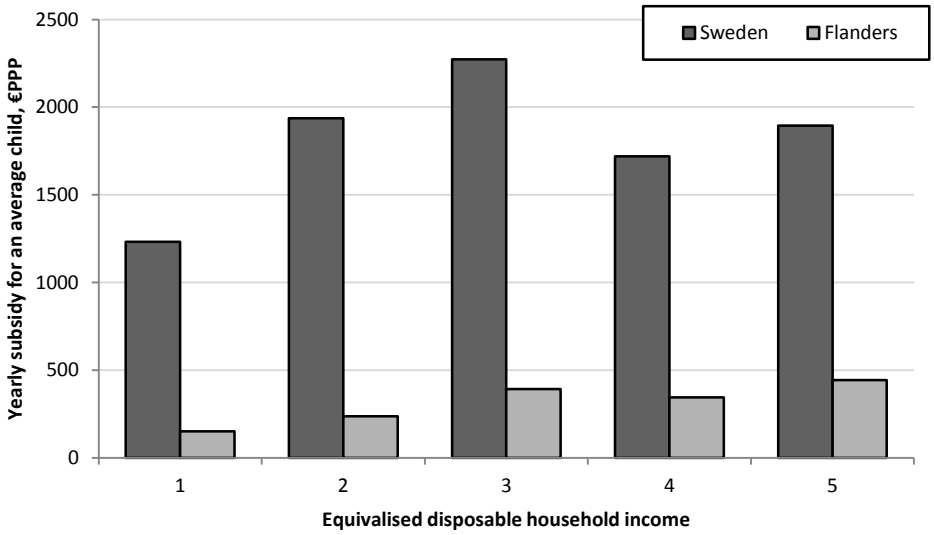
In Belgium, parental leave (*ouderschapsverlof*) is a strict implementation of the European Directive (*supra*). Introduced in its current form in 1997 by Royal Decree, it entitles each individual parent to 12 weeks of parental leave (recently extended to 16 weeks following the revision of the Directive). The parental leave benefit consists of a flat fee (federal plus Flemish supplement). The strict individualization implies that families stand to lose half of their entitlement if the father does not participate. However, fathers' take-up-rate is low. This may be due in part to the lack of proportional income replacement, though employer reluctance is also believed to be a factor. This system, too, is quite flexible: Leave can be taken on a full-time or part-time basis, including the option of taking leave at a rate of one day a week. This way, the entitlement period of twelve weeks may be proportionally extended to a maximum of 60 weeks. Additionally, in 1999, the Belgian

[9] For further details on the system of parental insurance and its effects on gender equality, see Haas and Rostgaard. (2011).

government introduced a generalized system of career breaks (*loopbaanonderbreking*) as an individual right for all workers. Although such leave may be taken for any reason,[10] it is often associated with child-rearing (Clauwaert and Harger 2000).

The benefits included in the analysis are those for parental leave and the related scheme of career breaks (as well as its more recent "time credit" variant). Because the career break scheme is not confined to parents with young children, only that part of the budget that is assigned to parents with young children is taken into account. It should, however, be noted that due to data limitations, no distinction is made between full-time and part-time leave. In 2005, government spending on the various types of parental leave for young children amounted to EUR 132 million, an average of EUR 351 per child.

Figure 2-7 Social distribution of government investment in parental leave



Source: own calculations.

Figure 2-7 shows that government subsidizing of parental leave in Flanders and Sweden is not distributed evenly across social strata. An

10 The Di Rupo I government, however, pledged to reform the system. Here, we report on the system as it was in December 2011.

average child in the first income quintile receives considerably less in leave benefits than a child in the upper quintiles. In Flanders, the highest income quintile is the main beneficiary, while in Sweden it is the middle-income group. Hence, despite large differences in their policy frameworks, both Sweden and Flanders fail to reach children in the lowest income group with measures of parental leave. As parental leave is directly linked to active participation in the labour market, a Matthew effect seems inevitable, regardless of the design of the measure.

However, as demonstrated in Section 2.3.3 the unequal distribution of use is only partially explained by differences in employment. Other potential factors are the types of jobs held by parents in the lowest income group, which may not be sufficiently stable for them to qualify for parental leave and/or (under the Belgian scheme) to convince an employer to sanction such leave, and insufficient household resources, which may impede use of the scheme. The rather odd observation that, under the Swedish system, the main beneficiaries are families in the middle quintile rather than the highest quintile may be due to the ceiling imposed upon the wage-related benefit level. After all, this may be assumed to make the system less attractive to high-earning families, in terms of career advancement and wage penalties (Moss 2013). By contrast, it allows middle-income mothers and fathers to profit fully from the wage-related benefit system. However, the precise causes of the socially stratified allocation of government investment in parental leave systems have yet to be established.

2.4.4 Childcare

From the mid-1970s onwards, childcare services developed quite rapidly in both Belgium and Sweden. Childcare in Sweden serves the dual purpose of enabling parents to combine paid work with parenthood and providing support for the development of children (Skolverket 2000a). The latter goal has gained in prominence since the responsibility for childcare was transferred in 1996 to the Ministry of Education (*Skolverket*), putting it outside the realm of social welfare. Child care in Sweden is organized at the municipal level, but with a national financial

framework and curriculum and centrally determined regulations. Municipalities are obliged to provide child care to the extent necessary for parents to be able to work and study without "unreasonable delay," which usually means within three to four months. The bulk of childcare services is provided publicly, although private facilities are becoming more widespread. In any case, the latter must meet identical standards and they are funded in the same way as the public services.

In the early 2000s, major reforms were implemented, imposing a ceiling on parental fees (*maxtaxa*). By the year 2003, all municipalities had introduced a uniform income-related tariff system as a result of which any remaining regional differences in fees were smoothed out (Skolverket 2007). Although prior to the reform, municipalities were free to set rates, almost all had already implemented an income-related tariff system (Brink, Nordblom and Wahlberg 2007). Another important aspect of the reform was the introduction of the additional obligation for municipalities to provide child care for children whose parents are unemployed or on parental leave. In effect, while children under 1 year old were almost always cared for at home, due to the system of parental leave (*supra*), about 85% of children yet to start school (aged 1 to 5 years) participated in public child care. Total government outlays for childcare subsidies for the year 2000 amounted to EUR 2,297 million, or an average of EUR 3,951 per child per year.

Unlike in Sweden, child care and education are separate policy areas in Flanders. In general, education starts at age 2.5 years, when almost all children enter kindergarten up to the age of 6 years. Kindergartens are free of charge and entirely state funded, although many are privately organized (Vandenbroeck 2006). Child care for children under the age of 3 years is a responsibility of the Welfare Department (a competence that was devolved to the Belgian regions under the 1980 state reform). The monitoring of care for those under the age of 3 years is entrusted by decree to the public institution Child and Family (*Kind en Gezin*, K&G hereafter), which sets forward three objectives: reconciling work and family life; supporting the development of children; and promoting the social inclusion of vulnerable groups. It should be noted that K&G does not organize childcare services itself and that, unlike in Sweden,

there is no such thing as a statutory childcare entitlement for young children. Even though child care is privately organized, a distinction can be made between facilities accredited and subsidized by K&G on the one hand and facilities registered with and supervised rather than subsidized by K&G on the other (see chapter 3).

Subsidized services receive funding that covers staffing (salaries) and operating costs. They must apply centrally determined income-related fees. Private facilities, by contrast, may set fees freely. Moreover, unlike in Sweden, parents can claim tax deductions for their childcare expenses, even if their children attend a nonsubsidized service (which makes all childcare services de facto indirectly subsidized).

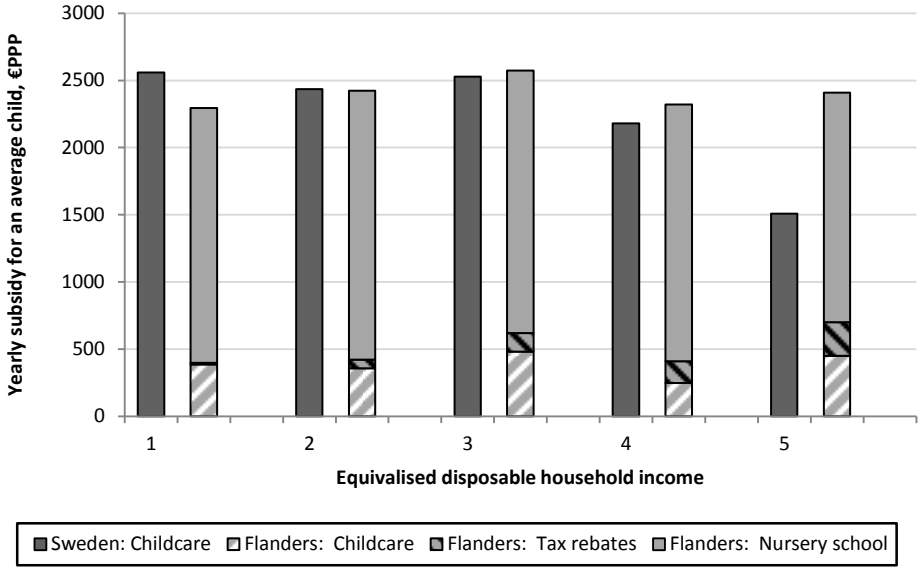
Flemish parents are each entitled to three months of parental leave (*supra*), which means that most infants enter childcare services before their first birthday. Around 1990, about 20% of children under 3 years of age (0–2.5) were in child care. This proportion has since increased to 63% (45% for Belgium as a whole) (Kind en Gezin 2009; Moss 1990). In 2005, total government subsidies for childcare services and kindergarten amounted to EUR 1,014 million, an average of EUR 2,691 per child per year.

As pointed out above, in Sweden, children from different social strata are represented quite evenly in subsidized childcare services, while in Belgium there is a bias in childcare use against the lowest incomes. (See chapter 3 for a further elaboration on the use of child care in both cases.) The reason for this inequality lies in factors of supply and demand: It is well-established that Flanders suffers from a general shortage in childcare supply, despite its high coverage rate, resulting in an underrepresentation of the lower income groups. In Sweden, the system of guaranteed places ensures equal access. However, as argued in section 2.3.2, the different labour market circumstances in the two countries obviously play a crucial role here. Yet, previous analyses of the FFCS data revealed that 70% of non-working mothers in the lowest quintile who are not using child care would prefer to be employed if possible (Ghysels and Van Lancker 2010). In other words, there is an untapped labour supply among low-income families who are disproportionally hit by the current lack of child care slots in Flanders.

Following the employment logic of the European discourse on child care, the provision and use of child care acts as a precondition for labour market attainment of mothers with young children, and the unequal use in Flanders warrants concern.

Figure 2-8 represents public subsidy allocation given the divergent usage patterns and substantial systemic differences between Sweden and Flanders.

Figure 2-8 Social distribution of government investment for childcare



Source: own calculations.

When analyzing the various components of government funding of childcare services in Flanders, it is important to keep in mind the underlying compensation mechanisms. The starting point is the net government subsidy to childcare providers. Because the tariff system is beneficial to lower income groups, subsidies net of parental contributions are larger in the lower income groups than in the higher income groups. In other words, the tariff system compensates for the unequal use of childcare services, to the extent that the direct government subsidy is not statistically different between the income groups. However, the equalizing effect of the income-related tariff

system is undone by the indirect subsidy of the tax reduction scheme, which allows parents to deduct part of their childcare outlays from income tax. All things considered, then, direct and indirect subsidies for child care are beneficial to the upper income groups. In Sweden, however, one observes the opposite pattern. Because there is no comparable tax deduction scheme, the income-related tariff system combined with a more equal usage among income groups results in higher average investment per child among the lower income groups.

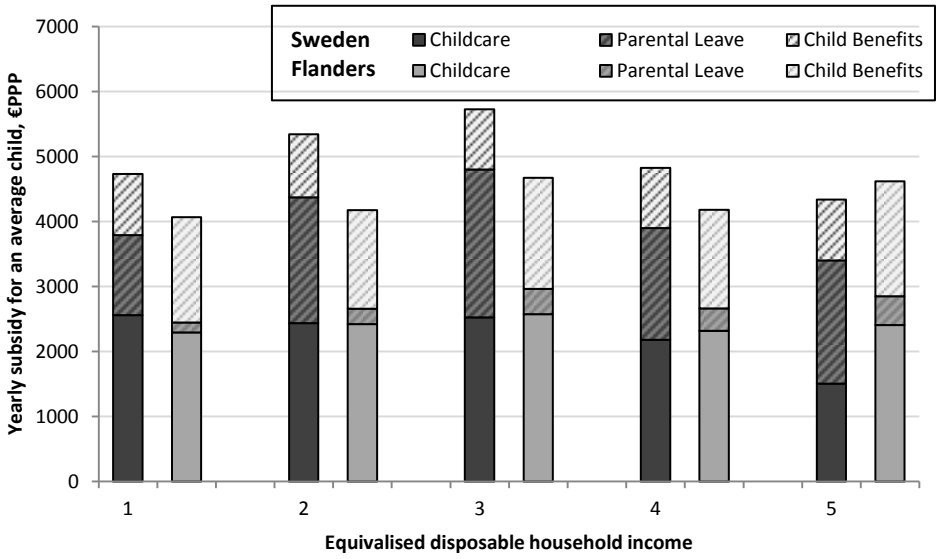
However, due account must also be taken of nursery school use in Flanders. From age 2.5 years, children are able to enter the school system. By age 3 years, attendance is quasiuniversal and by age 4 years almost all have become full-time users of the system. Thus, in the age group between 3 and 6 years, government funding is divided equally among the social groups. Moreover, funding is high relative to funding for the youngest children, because attendance approximates to 100% and tends to be full-time. Consequently, social inequalities in government funding of childcare services in Flanders are confined to the youngest age group. A strongly income-sensitive tariff system has proven insufficient to counteract this tendency, due to a combination of persistent inequalities in use (in consequence of supply and demand factors) and a "perverse" system of tax compensations that undoes the effects of the tariff system.

2.4.5 The Total Distribution of Old and New Family Measures

As a final step, the three measures of family support for young children are integrated into Figure 2-9, in order to compare the total distribution of government investment in the two cases considered. For Flanders, it suggests a rather uniform distribution. This follows from the relative dominance of two universal measures: child benefits and nursery schools. Indeed, the amounts of child benefits and nursery schools are clearly much higher than the government funding of pre-school childcare services or parental leave (see also Figure 2-8). This should not

come as a surprise, given that child benefits reach all children and attendance at nursery school is nearly universal, while the latter policy measures are selective by design. As shown above, this selectivity implies a certain bias. In the lowest fifth of the income hierarchy, children benefit significantly less from government funding for pre-school childcare services and parental leave. In Sweden, the allocation of government investment tends to benefit the lower and middle income groups most, while children in the highest income quintile receive the least.

Figure 2-9 The social distribution of total government investment for family policy



Source: own calculations.

2.5 CONCLUSION

This chapter has considered the question of who benefits most from government investment in family policy. The starting point was the observation that the nature of family policy has changed dramatically from passive cash payments (such as child benefits) to more activating and employment-related services and measures (such as parental leave and child care). Given this, it is often assumed that there has been a shift in government expenditure toward the latter type of schemes, the main beneficiaries of which are assumed to be the higher income categories, which is a so-called "Matthew effect." Using this insight as a conceptual tool, this study looked into the social distribution of three measures, namely child benefits, parental leave, and child care, representing respectively an old and two new forms of family policy, in order to ascertain whether or not the presence of a Matthew effect could be confirmed and, if it could, to establish whether it is an inevitable feature of employment-related forms of family policy.

The analysis began with a European overview, which yielded a rather unexpected picture: Countries spend increasing proportions of their budgets on *both* old and new forms of family policy. There is no clear evidence to be found in the data for the assumption that spending on child care and parental leave schemes is crowding out spending on child benefits. In the first years of the crisis (between 2007 and 2009), however, in many countries the expenditure increase came to a halt. We also found that high relative spending on one type of policy may or may not be accompanied by generosity in other areas of family policy. What is more, spending is not tightly linked either to the social distribution of use. As a matter of fact, relatively high degrees of equality in the use or take-up of family measures are observed at both high and low expenditure levels.

Our results underscore the importance of policy design in the broadest sense; hence the need for careful consideration of the existing policy framework and close monitoring of policy implementation. In reality, a policy measure may be undone by competing adjacent policies

or citizens may choose not to respond to a newly introduced measure, undermining its anticipated impact.

To illustrate the complexity of design and outcome interactions, detailed analysis was made of family policies in two different settings, namely Sweden and Flanders (Belgium). In a European comparative perspective, the two countries report high average spending per child on family policy. Moreover, they both have a universal child benefit system and rank among the countries with the highest use of childcare services. When it comes to parental leave, however, Sweden spends proportionally more than Flanders, where leave is comparatively short and not very generous.

At first sight, the overall distributional picture looks favorable for both countries: In Flanders, an average child younger than 6 years is likely to benefit equally from family policy measures across the income distribution and the same is (largely) true for Sweden. However, this overall and average picture is deceptive. It is biased by the age brackets chosen and stems in large part from the child benefit system. Traditionally, child benefits are the mainstay of family policy. In Flanders, this is true up to the present day; child benefits represent 37% of the amount an average child under the age of 6 years receives through the three measures scrutinized here. Consequently, the largely uniform and universal nature of the child benefits dampens potential disruptions of more selective family policy measures such as parental leave and childcare services, which are further discussed below. In Sweden, however, child benefits are less important. Here they represent 19% of the total amount received by an average child under 6 years of age. Conversely, the average amount spent by the Swedish government on parental leave is much more substantial (36% of the average total), and hence its distributional pattern also has a much greater impact on the overall distribution than is the case in Flanders. As has been demonstrated, neither Flanders nor Sweden achieves a socially uniform distribution of either parental leave usage or funding.

A widely applicable lesson to be learned here is that unequal distribution, although a legitimate cause for concern, only becomes crucial in the context of policy measures that have a large relative weight

in the total policy mix. Hence, if other European countries should opt to follow the Swedish route, with large increases in the use of parental leave and much greater spending on such measures within the family policy mix, they must give due consideration to the design issues involved. In Sweden, parental leave is proportional to the previous earned income, which is likely to motivate parents to make use of the measure. Yet, this design feature also entails a Matthew effect, which, under the premise that all children should be treated equally, is detrimental to those living in lower-income families.

However, the case of child care in Sweden demonstrates that, even when a large share of government outlays is devoted to a policy measure, Matthew effects are not inevitable. The Swedish childcare system is beneficial for the lower incomes thanks to its design and the universality of its use: Child care slots are guaranteed for every child from age 1 year onward and the tariff system is related to disposable income. A second lesson to learn here is that policymakers should be aware of the internal consistency of their policy initiatives: The Flemish regional government aimed for the inclusion of low-income families in its implementation of childcare services by designing an income-related tariff system, as exists in Sweden. However, the Belgian federal government concurrently introduced a measure whereby parents of young children who remain in work are compensated for their childcare expenses through a tax deduction scheme. The latter undoes the income-sensitivity of the tariff system completely.

A third lesson relates to exogenous factors such as the state of the labour market. Even when carefully designed, employment-related policies can generate Matthew effects because labour market participation is unequally distributed across social strata. Especially parental leave, but in many countries also childcare services, are tightly linked to parental employment. Without employment, parents may not be (or they may perceive themselves not to be) entitled to such newer strands of family policy. A generalization of the latter thus requires universal parental employment and, hence, accompanying labour market policy.

A final lesson concerns the age group taken into account. In subsequent chapters, the focus is on families with children younger than 3 years (see chapters 3, 5, 6, and 7). In the present chapter, the scope is widened to children under 6 years of age. This makes a considerable difference, because age 3 years is when universal childcare schemes (as part of the general school system) become applicable in many European countries. In other words, the distributional concern is often limited to the youngest age group, as the Flemish example indeed shows. For children aged 3 to 5 years, Flanders succeeds in equalizing its allocation of government investment in child care through its nurseries, which are free of charge and used almost universally. Again, this stresses the importance of expanding service use across income groups in order to avoid Matthew effects and a subsequent bias against the lowest incomes.

CHAPTER 3

THE SOCIAL DISTRIBUTION OF SUBSIDIZED CHILDCARE IN SWEDEN AND FLANDERS*

3.1 INTRODUCTION

In the last decades, childcare policies emerged in the midst of several parallel evolutions in industrialized nations. Increasing female labour market participation coincided with shifting gender inequalities and a change from the male breadwinner model to a generalization of dual earnership, among more broad developments such as a shift to service employment (Bonoli 2005; Crompton and Lyonette 2006; Esping-Andersen 1999). Consequently, the (gendered) problem of accommodating responsibilities at work and at home became an important policy issue and European welfare states adapted to this 'new social risk' in mutual interaction with European strategies to further increase (female) employment rates. Childcare is a focal point in this strategy, as it is generally considered an efficient labour market instrument removing disincentives to labour market participation for

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mothers while at the same time contributing to gender equality and investment in young children (Lewis, Campbell and Huerta 2008; Vandenbroucke and Vleminckx 2011). After being firmly put on the European agenda in 1992 with the adoption of the Childcare Recommendation, which reflected a discourse on economic efficiency and labour market opportunities, explicit childcare targets to provide childcare by 2010 to at least 33% of children under 3 years old were adopted at the Barcelona Summit in 2002 (see chapter 1). Generally speaking, social policy came to be seen as a productive factor rather than solely a device for protecting citizens against the occurrence of certain 'old' social risks, all this under the umbrella of safeguarding the 'European Social Model' and ensuring competitiveness and growth (European Commission 2000; Lewis 2009).

It has been documented earlier that changes in employment behaviour of married women, especially with dependent children, have predominantly accounted for rising female employment rates (Blossfeld 1995). Yet, dual earnership has (to date) been adopted in a socially uneven way in most European societies, with higher educated women being more often employed and living in a dual earner household (Cantillon et al. 2001; Evertsson et al. 2009). By the same token, the previous chapter revealed that public childcare provisions are in most European countries unevenly distributed among households, with a clear bias against low-income families. Taken together, the above suggests that the recent expansion of public childcare efforts has not eliminated across the board the gender employment gap that derives from care responsibilities. Rather it seems that budgetary resources for noncash services such as childcare policies end up with the higher income brackets and some strata in society have not (yet?) benefitted from these policy initiatives. Therefore, genuine concern is warranted about the distributional consequences of childcare policies on the one hand, and its effectiveness as an instrument to activate all mothers with young children into the labour market on the other. Apparently, the current childcare systems are not guaranteeing employment to all mothers in society and, hence, do not deliver the expected generalization of dual earnership. Obviously, the observed employment

gap cannot be attributed to policy flaws in the field of childcare only. Access to employment has to do with much more than finding appropriate care, as we will discuss in the next section. Yet, childcare acts as a pre-condition. Without a care solution, parents of young children simply cannot engage in employment. Our detailed comparison of two countries will shed light on the difference childcare policy can make.

The main focus of this chapter is on current outcomes. Given the imperfections of labour markets and policies, we analyse the social distribution of subsidized childcare services and wonder: *who benefits from government subsidies on childcare services?* Answering the distributional question is more complicated than one would expect: one has to gather data on the tariff structure of childcare services, private childcare costs (what parents pay themselves, i.e. out-of-pocket parental fees), government expenditures (subsidies to childcare providers and tax concessions) along with data on households' use of childcare. In this chapter, we present evidence on this question for two countries: Sweden and the Belgian region of Flanders. Both countries belong to the European forerunners regarding public childcare for young children (they have surpassed rather easily the Barcelona targets), display similar childcare characteristics and have a long-standing history of childcare expansion. As such, our approach can be considered as a weak version of John Stuart Mill's method of difference: if the outcome (the social distribution of government investment in childcare) turns out to be different in countries with similar coverage rates, it will provide us with valuable lessons on the nature, design and implementation of 'new risk policies' in light of European-led initiatives to increase childcare coverage (and thus female labour market participation) throughout Europe.

Before we start, a general limitation of this chapter has to be clarified. In contrast to chapter 2, here we are concerned with households having a youngest child under 3. Not only is the work-family conflict most pressing for parents having very young children, we also want to compare relatively homogenous groups in both our cases.

We will elaborate somewhat further on this restriction in the methodological section.

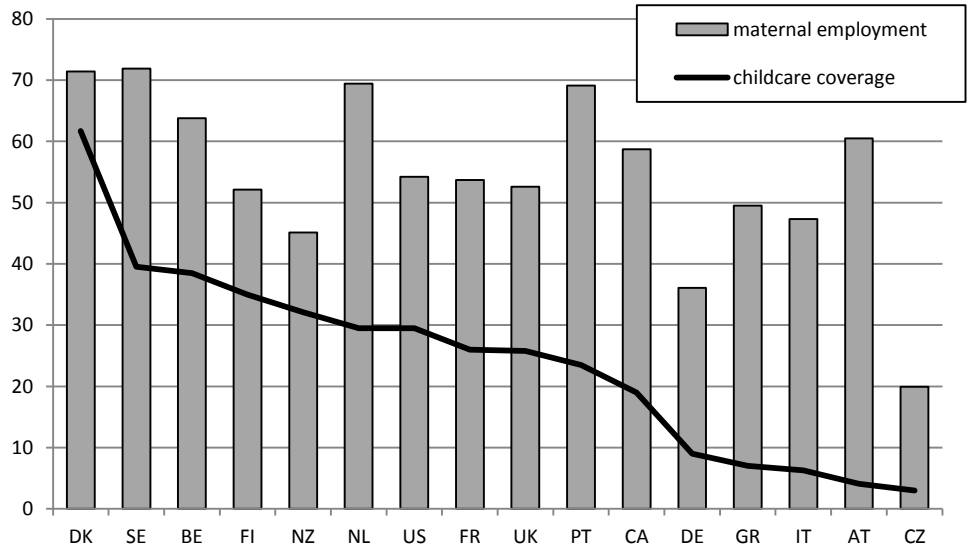
3.2 THEORETICAL BACKGROUND

The rationale behind the promotion of childcare as an instrument to increase female employment rates is quite obvious. Women still face the main burden of care for the children, and without the possibility to externalize care duties (be it through informal or formal channels) they simply cannot engage in paid employment. A vast amount of research has shown that the level of childcare provisions is the strongest determinant of female labour supply in industrialized countries (Gornick, Meyers and Ross 1998; Jaumotte 2003; Kreyenfeld and Hank 2000; van der Lippe and van Dijck 2002). Indeed, in the absence of decent care provisions, women often cut back on their working hours or quit the labour force to take care of their children, especially when the latter are of preschool age. This so-called child effect has been observed in all countries and for all women, although not necessarily to the same extent (for an overview, see Uunk, Kalmijn and Muffels 2005). It has also been established that not the cost of childcare per se, but access and availability is of uttermost importance (De Henau, Meulders and O'Dorchai 2007). The role of external care in allowing mothers to work is often evaluated in tandem with parental leave schemes, which foster parents' bond with the labour market by maintaining the contractual link when they retreat temporarily from the labour market to take care of their children. Leave rules allow previously employed mothers to return to their working place if they are able to 'outsource' parental care when the child is old enough.

In sum, the correlation between childcare provisions and female (maternal) employment is quite established although it is difficult to disentangle the direction of causality in this respect. Moreover, the association is not an iron law of nature, as exemplified in Figure 3-1. The figure shows employment rates for mothers with a child under 3 and childcare coverage for children under 3 in industrialized countries.

Although the general pattern reflects more or less the expected association between childcare coverage and maternal employment ($r = .63$; $p < .001$), we observe that countries with similar coverage rates can display different employment rates (compare for instance Sweden, Belgium and Finland). One of the explanations for this result could lie in the different distribution of care use within those high-coverage countries. Indeed, when a similar childcare supply is distributed in a dissimilar way, the argument can be made that the efficiency of childcare as a productive social policy instrument depends on the mechanisms and the design of the service, i.e. the way government investment in childcare is allocated over families with children.

Figure 3-1 Maternal employment rates and childcare coverage, OECD countries, 2005



Source: OECD (2007). *Note*: Employment rate for mothers with a youngest child under three (as a percentage of mothers aged 15-64) including those on leave. Childcare coverage for children under three. Countries included: Denmark (DK), Sweden (SE), Belgium (BE), Finland (FI), New Zealand (NZ), Netherlands (NL), United States (US), France (FR), the United Kingdom (UK), Portugal (PT), Canada (CA), Germany (DE), Greece (GR), Italy (IT), Austria (AT), Czech Republic (CZ).

In a recent study, (Mandel 2012) supports this argument by stating that not every women can be expected to benefit to the same extent from family policy, but that this issue is often overlooked when

assessing the impact of family policy on employment and the work-family balance. Likewise, in an illuminating study on the effect of subsidized child care on maternal employment in Norway, Havnes and Mogstad report that "*the large expansion in subsidized child care had little, if any, effect on maternal employment*" (2009). The reason for this is quite straightforward: the highest demand for childcare expansion came from mothers already at work. Hence we iterate our argument: if the social distribution of budgetary outlays for childcare benefits first and foremost the higher income families (which report more working hours and are more often dual earner families, e.g. Cantillon et al. (2001)), doubt can be cast on its effectiveness as a labour market instrument to increase women's employment rates. Obviously, the labour market integration of mothers does not depend solely on childcare availability as other factors are also at play, especially for low-income families: the state of the labour market and the unemployment rate, the gendered distribution of household work, labour market policies (financial incentives, low-wage subsidies) et cetera (Erikson and Nermo 2010; Gesthuizen and Scheepers 2010; Gornick, Meyers and Ross 1998). However, taking into account that childcare may not be a *sufficient* condition, it certainly is a *necessary* condition for mother with young children to engage in paid work. To be an instrument of labour market activation, childcare should thus reach out towards those facing the greatest barriers to employment. An analysis of the outcomes of government investment in public childcare allows to explore whether this is effectively the case.

This also touches on the issue of (vertical) government redistribution. Welfare states have in the past decades, albeit not in an equal way, reacted to broader evolutions such as the generalization of dual earnership and consequently adapted their policies to accommodate the growing need to reconcile work and family. Policies addressing new social needs are more service-oriented, as is certainly the case with childcare, and concerns about the potential loss of redistributive capacity due to a shift from benefits-in-cash to services-in-kind have been raised earlier on theoretical grounds (Esping-Andersen and Myles 2009). This shift from cash to services was however not

necessarily a universal evolution. In Sweden, which is often characterized as being an epigone of the Scandinavian 'social service model' (Rauch 2007) and where services as part of the broader social policy package were much earlier developed than in other welfare regimes, 1.7% of GDP was spent on childcare services in 2007 according to the OECD Social Expenditure statistics (OECD 2010). This is the same proportion of GDP as in the mid-1990s but a modest decline of 0.3 percentage points compared to 1990. A contrasting evolution took place in Belgium where 0.8% of GDP was spent on childcare in 2007, an increase of 0.7 percentage points compared to the mid-1990s. Given the stable importance of childcare services in Sweden and its growing budget in Belgium, the issue of the redistributive effect of services is not a trivial one, especially so in a European context where the expansion of childcare services is encouraged. If (scarce) government resources spent on childcare services benefit the higher incomes, concern is certainly warranted.

However, measuring the redistributive effect of services is a difficult undertaking. Earlier work on the distributional consequences of childcare, such as Marical et al. (2008) and Matsaganis and Verbist (2009), looked at overall distributional consequences in terms of Gini-coefficient and poverty outcomes by assigning a monetary value to childcare services and treating these as benefits-in-cash. The results suggest that services are redistributive albeit less so than cash transfers (Esping-Andersen and Myles 2009). Exactly the same conclusion has been formulated in Scandinavian research in the eighties and nineties: "*social services (..) are not as effective in income redistribution as direct transfers*" (Kröger 1997). This approach thus yields valuable insights, yet falls short for our purpose. We are not interested in the income distribution in terms of an inequality coefficient, but aim to have a genuine grasp of the allocation of government funds among different households in society. In order to do so, an analysis using more detailed data is indispensable.

3.3 A BRIEF SKETCH OF CHILDCARE AND ITS EXPANSION

Although crèches for children of single mothers existed already in the second half of the 19th century, the expansion of childcare *as we know it* in Sweden started from the 1970s onwards to mitigate falling birth rates and accommodate the growing demand by parents. In 1963 only 3% of all pre-school children (1-5) were in childcare but from the 1970s onwards this share tripled to around 30% in 1980. Nowadays, about 85% of young children participate in public childcare (Bergqvist and Nyberg 2002; Ferrarini and Duvander 2010; Skolverket 2010).

Childcare in Sweden has the twin aim of making it possible for parents to combine paid work and parenthood on the one hand and supporting the development of children on the other (Skolverket 2000a). The latter has grown even more important when responsibility for childcare was transferred to the Ministry of Education (*Skolverket*) in 1996. Childcare has traditionally been provided publicly. Before the 1990s, there was almost no private provision of childcare, and even now private facilities occupy only a minority place in the childcare landscape (Ferrarini and Duvander 2010). Nevertheless, private facilities have to meet the same standards and are funded the same way as public services (Allodi 2007). Children under 1 year are almost always cared for in their own home due to the system of parental leave (when a child is born, the parents are entitled to 450 days of paid leave). For children yet to start school (aged 1-5), three public childcare services can be distinguished: Preschool (*förskola*), family daycare home (*familjedaghem*) and open preschool (*öppna förskolan*). Preschools are the most widespread form of childcare, are open the year round and have varied opening hours to correspond as good as possible with parents' working times. These services also have to comply to a national curriculum. Family daycare concerns public childcare in the home of childminders. This variety is more often used in rural areas or areas lacking access to an adequate preschool offer. Finally, open preschools are a form of 'pedagogical playgroups' for children whose parents are at home during the day. Because there is mostly no registration obligation, no regular hours of

attendance and the service is mostly free of charge, our analysis is not concerned with this form of preschool care.

Childcare in Sweden is - conform its distinct concept of local self-government - organized at the municipal level though has a national financial framework and curriculum and centrally determined regulations. Municipalities are obliged to provide childcare to the extent necessary for parents to be able to work and study, without 'unreasonable delay' which means usually within 3-4 months. In the beginning of the 2000s, major reforms took place. While parental fees for childcare showed considerable variation between municipalities (and a tendency to increase over time) before that time, the reforms imposed a ceiling on parental fees (*maxtaxa*). By the year 2003 all municipalities had implemented a uniform system which abolished most of the regional differences in fees (Skolverket 2007).[11] Another important part of the reform was the additional obligation for municipalities to provide childcare for children whose parents are unemployed or on parental leave.

In Belgium, too, childcare services for young children emerged in the mid-19th century but only matured and developed rapidly since 1970 (Morel 2007). Contrary to the Swedish case, childcare and education are separate policy areas. In general, education starts at age 2.5 when almost all children attend kindergarten until the age of 6. Kindergartens are free of charge and entirely state funded, although many are privately organized (Vandenbroeck 2006). Childcare for children under 3 is a responsibility of the welfare department (a competence transferred to the Belgian regions since the 1980 state reform). In what follows, we focus exclusively on the Belgian region of Flanders which covers about 60% of Belgian inhabitants. In Flanders, responsibility for monitoring care for under threes is entrusted by decree to the public organization Child and Family (*Kind en Gezin*, K&G hereafter) which sets forward three aims: the reconciliation work and

11 'Maxtaxa' limits parental fees for childcare to 1–3 per cent of gross parental income below a fixed maximum for the first three children. No fee has to be paid for any subsequent child.

family; supporting the development of children; and social inclusion of vulnerable groups. It has to be noted that K&G does not organise childcare services by itself and that there is no such thing as a legal childcare entitlement for young children (unlike in Sweden).

Flemish parents are entitled to 3 months of parental leave, which means that most infants enter childcare services before their first birthday. Around 1990, about 20% of children below 3 (0-2.5) were in childcare. This number increased to 63% nowadays (45% for Belgium as a whole) (Kind en Gezin 2009; Moss 1990). Since the beginning of the century, subsequent childcare surveys have indicated a shortage in childcare slots (Ghysels and Debacker 2007; Hedebouw and Peetermans 2009; Vanpée, Sannen and Hedebouw 2001). Research in 2007, for example, indicated that 10% of parents had no perspective on a suitable place after three months of search (Market Analysis and Synthesis 2007). This motivated the subsequent Flemish governments to invest in expansion and led in 2011 to an ambitious plan to align supply with demand by 2020.

Currently, two important childcare arrangements can be distinguished: child-minding facilities accredited and subsidized by K&G; and child-minding facilities registered with and supervised by K&G but not subsidized (Vanpée, Sannen and Hedebouw 2001).[12] Subsidized services comprise nurseries (*kinderdagverblijf*) and child-minding services (*onthaalouder*). The ratio between the two is more or less 33% versus 66% respectively. These receive subsidies covering staff (salaries) and running costs but cannot set their own fees (these are centrally fixed and income-related) and have to meet strict quality requirements. Consequently, there is no regional variation in parental contributions among subsidized services. In contrast, private facilities can set their own prices. Subsidized services also have to give priority to vulnerable groups, such as low-income families and single parents. Finally, parents can claim tax deductions for their childcare expenses,

12 Officially, there is also a third variety (child-minding facilities that have only complied with their duty to register, but which are not accredited and not subsidized by K&G) which is however very scarce.

even if their children attend a non-subsidized service (making all childcare services de facto subsidized in an indirect way), which is not the case in Sweden.

In sum, while childcare in Sweden is aimed at children aged 1-5, almost entirely publicly-provided and integrated in the educational curriculum, in Belgium a particular form of public-private partnership has emerged with services aimed at children 0-2.5 either directly or indirectly (via tax concessions) funded by the state and organized by municipalities or privately (Vandenbroeck 2006). In the following analysis, we are concerned with all government investment in childcare, whether privately or publicly provided, and its allocation among families with children under three. For Sweden this relates to subsidies given to the public and private service providers alike. For Flanders a distinction is to be made between three flows of government funding: subsidies to childcare providers, subsidies (in the form of tax concessions) to parents using subsidized childcare providers and subsidies (tax concessions) to parent using service providers who are not directly subsidized by the government.

3.4 DATA AND METHODOLOGY

To investigate the social distribution of government investment in childcare, detailed data on childcare use, parental contributions, the tax system and government expenditures is vital. This excludes the use of the EU-SILC dataset, which is used by Eurostat to monitor childcare coverage in European countries, because it only provides data on childcare use but no information on private costs (parental contributions). Hence we use two specific datasets which contain the necessary variables (income, private costs, childcare use) to conduct our analysis. For Flanders, we rely on the *Flemish Families and Care Survey* (FFCS) of 2004-2005. The FFCS sample is a randomly drawn representative survey containing 1065 families with a child under three. For Sweden, we draw data from the *Swedish Level of Living Survey* (LNU), year 2000 wave (concerning income year 1999). The LNU is a random

sample representing 1/1000 of the Swedish population between 18 and 75 and contains 435 families with a child under three. For Swedish data on government expenditure, we use government-provided expenditure statistics for the year 1999 made available by the Swedish National Agency for Education (Skolverket 2000b). For Flanders, we rely on a detailed and complete overview of the Flemish budget for the year 2003 (Cantillon et al. 2006) which we have updated to include expenditures for the year 2005. The time-gap between the two sources does not need to worry us here. In Flanders, the institutional situation has not changed and local studies using more recent data demonstrate the relative stability of care use among income groups (Hedebouw and Peetermans 2009) and, hence, the on-going relevance of our study. Our Swedish data, however, predates the above-mentioned maxtaxa reform carried out between 2001 and 2003. This reform entailed inter alia the introduction of maximum parental fees and the obligation for municipalities to keep available pre-school slots for certain groups. However, recent reviews have shown that the reforms led to a decrease in childcare costs which improved the financial basis of low-income families (Brink, Nordblom and Wahlberg 2007; Mörk, Sjögren and Svaleryd 2009) and to an increase in enrolment rates among those families (Skolverket 2007). In short, we can confidently assume that the Swedish outcomes nowadays will be *better* than the results we report in this chapter. In other words, the results presented are likely to approximate the current situation in Flanders and provide a lower bound estimate for the current situation in Sweden.

As mentioned in the introduction, we limit the scope of our chapter to families with a youngest child under three. These families often have older children using childcare. Because we want to compare homogeneous groups we do not take these into account. Doing so would lead to biased results for Flanders were almost full coverage in kindergarten for children between 2.5 and 5 is ensured via the educational system. Limiting our analysis to children below 3 ensures we compare budgetary outlays for childcare only. For our analysis, we

divide the Flemish and Swedish households in our sample into five income groups (quintiles) using disposable household income.[13] Then we compile information of the budgetary outlays attributed to childcare services for families with a youngest child under three and consequently distribute the total budget over the income quintiles. While doing so, we take into account the effective use of childcare and control for what parents pay (parental contributions net of taxes) given the tariff structure in both countries. The final result is a close estimate of the *genuine (net)* government subsidy per income group in both countries.

Throughout our analyses we will use household income as an indicator of social position. It should be noted that income is in itself dependent on childcare use. To the extent that childcare services facilitate employment and, subsequently, employment contributes to household income, the use of childcare can be expected to correlate positively with household income. In the same vein, low income families can be expected to be – on average – less extensive users of childcare than high income families. However, we will show below that this mechanistic logic applies in quite different degrees to Flanders and Sweden. Moreover, it is exactly the latter result that motivates our analysis: is the public funding of services necessarily biased against the poor or can a service policy be designed that serves all families equally, even if these families differ in their level of material well-being (and underlying employment intensity)? Here, we are primarily concerned with the distribution over the whole population of families with young children. A selection of, for instance, dual earner households only, would exclude some of the most vulnerable households from our view, while we are expressly interested in how they are affected (or not) by public funds for childcare. All in all, the reader should bear in mind that household income is both a classification and an outcome variable.

In effect, our empirical exercise consists of three parts. First, we elaborate somewhat more on the use of public and private childcare by

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13 Household income is corrected for economies of scale with the so-called OECD modified equivalence scale (assigning a value of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child).

the families in our two samples. Second, we dig deeper into the tariff system and parental contributions in both countries. Finally, we present our analysis of the social distribution of government expenditures on childcare.

3.5 Care use in Sweden and Flanders

To frame our analysis, we begin with a discussion of some relevant characteristics and care use of the households in our two samples as shown in Table 3-1 and Table 3-2. Generally, both countries resemble each other's characteristics. The average number of children below three, the proportion of lone parents and the average working hours in the household show the same pattern per income group. The lowest income groups are less active in paid employment in both Sweden and Flanders. Comparing the working hours in Sweden and Flanders, we observe that the total hours worked per week are generally lower in the former than in the latter, but that Swedish households in the lowest income group tend to work more than their Flemish counterparts. Next to this, the proportion of lone parents in Flanders is concentrated in the lowest income quintile while they are somewhat more spread among the first and second quintile in Sweden. Yet, it is clear in both countries that the disadvantage of being a lone parent is skewed towards the lowest incomes.

Table 3-1 Characteristics and care use of families with a youngest child under 3 in five income quintiles, Sweden, 1999

	No. of children < 3 (mean)	Working hours[a] (mean)	Workless house-hold[b] (%)	Lone parents (%)	No informal care[c] (%)	Formal childcare use (children <3) (%)	Childcare costs[d] (%)
Q1	1.1	30	3.7	11.6	38.1	63.7	13.0
Q2	1.1	39	2.3	10.1	19.0	63.5	8.7
Q3	1.1	50	1.2	3.5	12.5	65.0	8.2
Q4	1.0	55	1.2	1.2	13.9	66.0	8.6
Q5	1.0	59	0.0	0.0	10.6	74.2	7.1
Mean	1.1	46	1.8	5.3	18.9	66.3	9.0
N	435	435	435	435	435	435	277

Source: LNU 2000. *Note*: [a] The sum of the working hours of both parents (if applicable) in the last week. [b] No one in the household is engaged in paid employment at the moment of inquiry. [c] Families not using grandparental care at all. [d] Measured as a proportion of monthly disposable income and including only families using childcare services (public and/or private). Q = Quintile.

Table 3-2 Characteristics and care use of families with a youngest child under 3, Flanders, 2005

						Formal childcare use (children<3)			
	No. of children < 3 (mean)	Working hours[a] (mean)	Workless house-hold[b] (%)	Lone parents (%)	No informal care[c] (%)	Subsidized providers (%)	Non-subsidized prov. (%)	Total (%)	Childcare costs[d] (%)
Q1	1.2	21	24.3	20.5	19.7	16.4	9.9	26.4	8.2
Q2	1.2	45	1.4	8.2	14.4	27.5	21.6	49.1	6.6
Q3	1.1	56	1.4	3.3	8.6	42.8	24.8	67.6	5.8
Q4	1.1	64	0.5	1.2	9.4	34.9	40.0	74.9	6.1
Q5	1.1	65	0.0	2.0	4.5	40.6	32.5	73.0	6.3
Mean	1.1	50	5.5	6.9	11.3	32.3	25.7	58.0	6.4
N	1065	1065	1065	1065	1065	1065	1065	1065	703

Note: See note to Table 3-1. *Source*: FFCS 2005

The data on care use allow us to distinguish between various type of care in a regular week. Formal care represents the total proportion of families using government regulated childcare services. The data are

provided by the respondent (one of the parents of the children) and does not concern intensity of use, only whether there is care use during the week or not. Here we do observe clear differences between Sweden and Flanders, although both report high total care use figures (66% and 58% respectively). It is very clear that the use of childcare services is quite evenly distributed among income groups in Sweden (with the exception of the highest quintile), while biased against the lowest incomes in Flanders: they make to a much smaller extent use of childcare services (26% and 49% for the first two quintiles). This coincides with a higher number of workless households among low-income families in Flanders compared with Sweden. This should not come as a surprise given the close association between income and employment on the one hand, and between employment and care use on the other. Our data suggest that the high level of care use of low income families in Sweden derives from their higher employment rates. This is underpinned by the large differences in workless households (24% in Flanders versus 4% in Sweden, see Table 3-1 and Table 3-2). As such, the difference in the distribution of care use between Flanders and Sweden could simply be a reflection of labour supply and demand. To test this, we have looked at childcare use among a subsample of working mothers. The results show that the bias against the lowest incomes attenuates yet does not disappear (use varies between 47% in the lowest quintile versus 66% in the highest). In sum, even if controlled for employment, Flemish care use is still skewed towards the higher incomes.

How does this result come about? First, it is widely acknowledged among policymakers that Flanders suffers from a general shortage in childcare supply despite its high coverage rate. This is in particular detrimental for low-income families because they face many barriers attaining the (available) childcare slots (Market Analysis and Synthesis 2007). This does not hold for Sweden where municipalities are obliged to provide sufficient places in preschool according to demand. But maybe the demand is simply lower in Flanders compared to Sweden? If that were true, the unequal distribution of care use in Flanders would merely be a reflection of labour supply and, thus, childcare as an

activation instrument is working the way it is supposed to work: it facilitates access to paid employment for those mothers *willing* to work. This explanation, however, is flawed. Previous analyses on the FFCS data revealed that 70% of non-working mothers in the lowest quintile who are not using childcare report that they would prefer to be employed if they had the possibility to (Ghysels and Van Lancker 2010). Taken together, the above points to a large untapped labour supply among low income families who are disproportionally hit by the current lack of childcare slots in Flanders.

Second, previous research suggest that net childcare costs can offset income gains made by employment, especially in the case of low wage work (Immervol and Barber 2005). If this would explain the differences between Flanders and Sweden, one would expect net costs to differ significantly in Sweden and Flanders. This is however not the case (see Table 3-1 and Table 3-2). Childcare costs as a proportion of monthly disposable income show in both countries a rather digressive pattern, and this is especially so in Sweden. There, the lowest income families spend on average 13% of their monthly income on childcare (taking both public and private care into account) which is almost twice the proportion of the highest incomes (7%). Overall, Swedish families spend a higher proportion of their income than their Flemish counterparts (ranging from 8% in the lowest to 6% in the highest quintile). In the next section, we will look more in-depth into parental costs.

Third, Flemish low income families may offset their relatively lower use of public care through care alternatives like private care services or informal care. Yet, only a marginal share of them find their way to private facilities. In fact, the use of private facilities shows an increasing trend with income: the higher one's disposable income, the higher one's use of private care provisions. Then again, the unequal use of childcare among income groups in Flanders should perhaps not be a cause for concern if those households are able to compensate the lack of formal care channels through informal care (e.g. grandparents). Our data shows, however, that low income families actually rely to a *lesser extent* on informal care channels than higher income families in both Flanders

and Sweden. Among the lowest incomes (first quintile), 20% of Flemish and 38% of Swedish families report to receive no grandparental help at all.

3.6 PARENTAL CONTRIBUTIONS AND THE TARIFF SYSTEM

It is important to take parental fees into account in our analysis: the share paid by parents is a reduction of the total childcare cost for the government. Hence, when out-of-pocket parental contributions are high, costs for the government will be lower and *vice versa*. As mentioned above, before the reforms in the 2000s, Sweden lacked a uniform tariff system. Municipalities were free to set their own tariffs which were however mostly income-related and time-related (depending on the intensity of use) (Brink, Nordblom and Wahlberg 2007). This led to considerable differences in parental contributions between municipalities: while some households almost paid nothing, others paid up to SEK 6000 (€698) per month in 2001 (Skolverket 2007). Moreover, the share of childcare costs covered by parents increased from 10% in the 1990s to approximately 18% in 1999 (Skolverket 2000b). It is only since the maxtaxa reform (*supra*) that a maximum ceiling on parental contributions was imposed and that fees ought to be related to gross income. In Flanders, childcare tariffs for subsidized childcare services are centrally set and vary with household income and intensity of use (thus resembling Swedish practice). For the year 2005, this translated in a cost between €1.41 and €25.18 per child per day (Kind en Gezin 2005).

How does the distribution of parental contributions for childcare look like if we compare Flanders and Sweden? Figure 3-2 shows the childcare cost per income group (adjusted for inflation and converted to purchasing power parities using 2005 prices to make both cases comparable), controlled for the number of children[14] and subdivided

[14] As an anonymous referee rightly pointed out, controlling for the number of children is indispensable which we have done by dividing the total childcare

into the median parental contribution (the middle line), the 10% most paying families (top line) and the 10% least paying families (bottom line). This way we can easily see whether the general pattern of parental fees is related to disposable income, and also what happens at the extremities.

Despite the differences between the centrally set and explicit pro-poor design in Flanders and the municipal variation in the Swedish tariff system, the pattern of childcare costs among the different income groups resembles each other. The median line shows that in both systems the lower incomes tend to pay less than the higher incomes, although childcare costs in Sweden seem to be somewhat higher for the lowest incomes (which coincides with the figures in Table 3-1 and Table 3-2 showing that Swedish low income families spend a higher share of their income on childcare). In Flanders, the dispersion is larger than in Sweden: the least paying families pay less and the most paying families pay more. Moreover, some Flemish families in the first quintile face extremely high childcare costs: they pay even more than highest paying families in the third quintile. The reason for this is quite straightforward: Some of the low-income families (see Table 3-2) are forced to rely on care by non-subsidized service providers (who can set their own prices and are generally more expensive) because they cannot secure a slot in the subsidized sector. This is also one of the downsides (next to not using external childcare at all) of the problematic access to available subsidized childcare slots for some of the low income families in Flanders.

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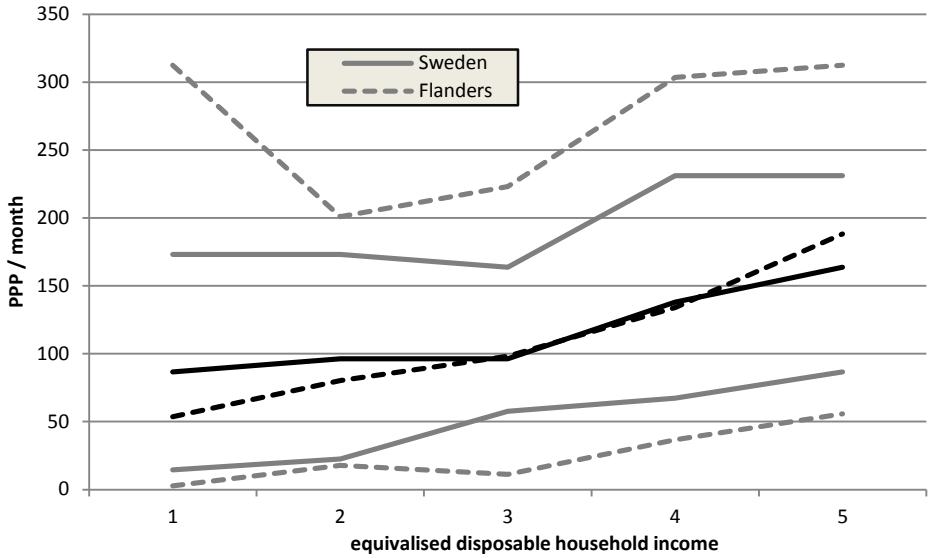
cost by the number of children actually using care. Failing to do so would make the comparison between income groups redundant given the observation that the number of children in care differs between income groups.

Figure 3-2 Monthly childcare cost by income group, Sweden and Flanders, €PPP



Source: own calculations on LNU 2000 and FFCS 2005. *Note*: The graph shows the out-of-pocket childcare cost per child by income group subdivided in the median parental contribution (the dark middle line), the 10% most paying families (top line, p90) and the 10% least paying families (bottom line, p10). Amounts are adjusted for inflation and converted to €PPP.

The bottom lines in the graph show childcare costs among the lowest paying families, and one can observe that in Flanders some families in the third quintile pay almost no childcare fees, despite their higher disposable income. In Sweden, the bottom line seems to be more related to income. Yet, broadly speaking, both countries represent an income-related tariff system, despite their differences in design. If families were to use subsidized childcare services to a similar extent over the whole income distribution, the distribution of government expenditures would be skewed towards the lower quintiles, because in these quintiles parental contributions are low and, hence, the profit of government expenditures is high (Ghysels and Van Lancker 2011). However, as shown in Table 3-2, the use of childcare services offered by subsidized providers is not uniformly distributed across income groups in Flanders. In the subsequent analysis we will demonstrate how these two interrelate. Nevertheless, the similarity of the tariff structures means

that differences between the two countries concerning the social distribution of government outlays for childcare are not likely to stem from the tariff system.

3.7 THE SOCIAL DISTRIBUTION OF GOVERNMENT FUNDING FOR CHILDCARE

In the final part of this analysis, we combine the above findings on use and parental fees with government outlays on childcare for families with a youngest child below three. The results reflect the social distribution of government subsidies for public childcare. This is not simply a matter of dividing a given budget over income groups according to their care use. Instead, we have to take parental contributions into account and have to distinguish between direct and indirect subsidies. It is the combination of all these elements which gives a genuine estimate of government efforts and how these benefit different income groups.

In effect, this exercise consists of two parts. First, we compile information of the budgetary outlays of the underlying policy measures (budgetary years 1999 and 2005 for Sweden and Flanders respectively). Second, we distribute the total budget over five income quintiles taking into account both the use of formal childcare, tax deduction (only in Flanders) and parental fees.

In Sweden, Skolverket (2000b) reports an expenditure of SEK 39,721 billion on childcare services in 1999. This amount includes all expenditures at the level of the municipalities and also comprises grants for private childcare initiatives. As the budget applies to all children between 0 and 12 in different care facilities and our investigation is focused on families with young children, we have to fine-tune the budget one step further. Based on LNU, we estimate the share of the children below 3 using care relative to the total share of children using care in Sweden. The resulting proportion (30,9%) is then applied to derive an estimate of the government budget on (public and private) childcare for these households: SEK 12,273,789,000 or €1,427,184,767.

In 2005, the federal and Flemish government spent about €100 million in direct subsidies on childcare for children under three in the Flemish region. Besides these direct subsidies, we also have to take tax deductions for childcare into account. The latter function as indirect subsidies, replacing part of the contribution of parents to childcare service providers with public funds. Because tax figures are not readily available in our survey data, we simulated the tax concessions for childcare expenses in the income year 2004 for the families in our sample. The tax-benefit micro simulation model we used for this exercise (MISIM, see footnote 15) provides an estimate of €61 million of government expenses for tax deductions for the year 2005.[15] These concern tax deductions as a result of childcare expenses for children under three in the income year 2004 for families living in the Flemish region.[16] This leaves us with a government budget for childcare of €161,214,000. It is important to note that we were not able to compile the total budget for Flanders because there exist numerous indirect expenses by other government bodies (e.g. municipalities) for which we don't have reliable data.[17] But as our calculations account for more than 70% of the total public efforts for childcare (Cantillon et al. 2006), we simply assume that the expenses not accounted for are distributed in a

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15 MISIM (MIcroSImulationModel) is a static microsimulation model, which enables to evaluate policy alternatives in the field of social security and personal taxation. It is a tax-benefit model developed by the Centre for Social Policy (Verbist 2002).

16 The tax reduction related to cash expenditures for childcare services means that taxable income of the fiscal unit is reduced with the out-of-pocket costs of the childcare service, with a maximum though of €11.20 per day per child (for children younger than three, extended to 12 years in 2005). Families who do not deduct childcare fees qualify for a lump-sum raise of the income tax exemption with €480 (for every child younger than three at the end of the income year).

17 An example of the lacking information regards the incomplete social security status of childminders (they are not regarded as employees, but are not obliged to pay social security contributions as a self-employed either). To avoid the consequences of this lack of professional status, the Belgian government developed specific social security regulations for childminders. The costs of the latter are not reflected in the subsidies to childcare services, but are an indirect transfer to the sector.

similar way. The huge difference between the budgets assigned in Sweden and Flanders is eye-catching (even if we would be able to take into account the total Flemish budget), especially given the high overall coverage rate in both countries. Demographics certainly play a role here, given the larger population in Sweden (and thus a higher number of young children[18]), but the difference in total budget assigned is presumably best explained by the differences in the design of the service: 1) guaranteeing childcare slots is an expensive affair; 2) the Swedish child-to-staff ratio is smaller on average (5.5 versus 7 in Belgium according to the OECD Family Database); and 3) salaries of the staff (which have in majority an upper-secondary degree) are comparable to average wages in other occupations in Sweden, while this is not the case in Flanders.[19]

Subsequently, we distribute the estimated budgets over the income quintiles in each country, controlled for parental contributions (because these represent a transfer of the parents and not from the government) and according to the care use of children below 3 in the households in our sample (controlled for differences in number of young children across income groups). The combined effect of this exercise is showed in Figure 3-3 for Flanders and Figure 3-4 for Sweden.

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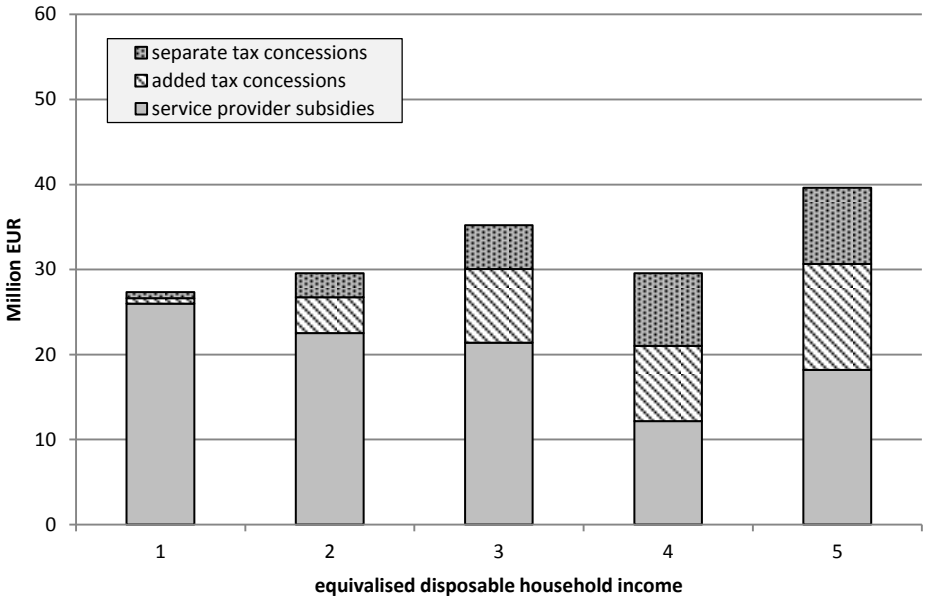
18 To give an idea of the differences: 368,968 children between 1 and 6 were enrolled in 1999 in Sweden versus 95,538 children between 0 and 2.5 in 2005 in Flanders. See Kind en Gezin. 2005. "Jaarverslag Kinderopvang 2005 [Yearbook on Childcare 2005]." Brussels: Kind en Gezin. and Skolverket. 2000b. "Descriptive data on child care and schools in Sweden in 2000." Stockholm: Skolverket..

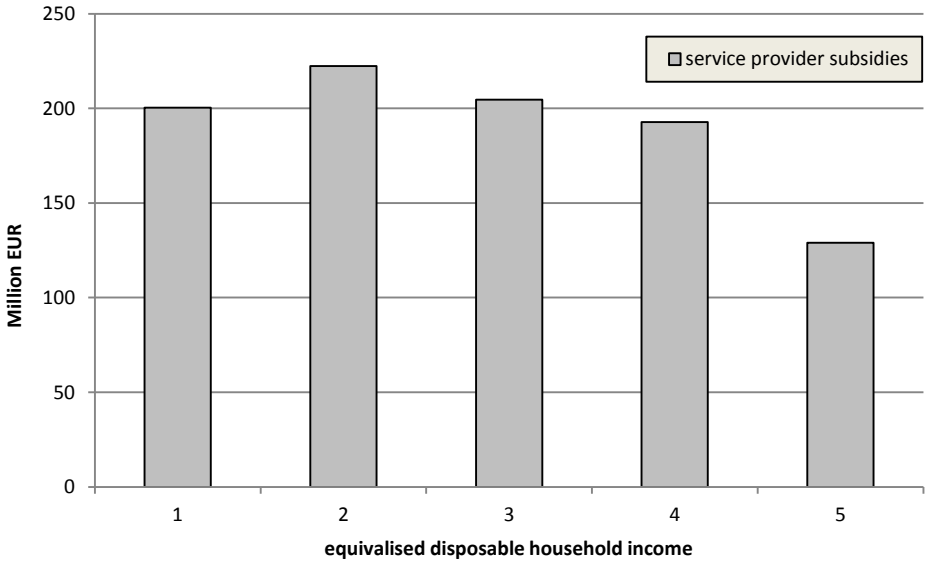
19 In Flanders there exist no general educational requirements for childcare staff. Especially childminders often have had no specific training (except their experience as a parent).

Figure 3-3 The social distribution of childcare subsidies in Flanders, 2005



Source: own calculations. *Note*: A distinction is made between tax concessions given to parents who rely on childcare providers who receive government subsidies ('added tax concessions', since they accrue to the services that are also directly subsidized) and those who do not receive government subsidies ('separate tax concessions').

Figure 3-4The social distribution of public childcare subsidies in Sweden, 1999



Source: own calculations.

In Flanders, the total government investment in childcare is unequally distributed over income groups with the lowest quintile receiving a disproportionally smaller share. This inequality can also be expressed in figures. The quintile ratio (Q5/Q1), for example, equals 1.5. In other words, households in the highest quintile profit one and a half times as much of public support for childcare than families from the lowest income quintile. It is striking to observe that, if one would only take account of direct subsidies (given to service providers), government efforts would be clearly pro-poor. Despite very unequal care use, the income-related tariff structure of subsidized childcare ensures that government funds flow towards the lowest incomes. However, this pro-poor distribution is completely undone and even reversed because of the indirect government subsidies in the form of tax deductions. This unequal distribution of tax concessions stems from the combination of deductible parental costs (care use multiplied by income-related tariff) with the marginal tax rate at which the tax concession is calculated. In Flanders, childcare costs are deducted from taxable income and, hence, those households paying relatively more taxes benefit most from the deduction. At the bottom of the income distribution, households pay only small parental contributions for childcare and, moreover, they have little taxes to reduce anyway.

The situation is opposite in Sweden. Here, the lowest incomes benefit almost twice as much (Q5/Q1=0.64) from government subsidies on childcare than families in the highest quintiles. Phrasing the matter differently: 45% of the total budget on childcare flows to the households in the first and second quintile.

To sum up, the Swedish public childcare system is unequivocally and successfully pro-poor: public funds flow in majority to families with the lower incomes which have guaranteed childcare slots and pay not as much parental contributions, while higher income families pay higher fees. In Flanders, this pattern is reversed: the bulk of government expenditures is allocated to the higher income families, despite the pro-poor design of the tariff system, because of the right-skewed use pattern and the system of tax deductions for both subsidized and non-

subsidized care providers (which benefit the higher incomes by design, see footnote 16).

3.8 CONCLUSION

In this chapter we unravelled the social distribution of government subsidies on childcare services for families with young children in Sweden and Flanders. Both have a long-standing history of heavily subsidized childcare services and belong to the highest-coverage countries in Europe. Yet, our results show that the impact of childcare on families is quite different in the two cases.

First, we showed that the use of formal childcare is unevenly distributed among families with young children in Flanders: lower income families tend to use childcare services to a much lesser extent than their higher-income counterparts. In Sweden, childcare use is quite evenly distributed. Second, we found that the income related tariff system in both countries works properly, although some of the lowest-income families in Flanders face very high childcare costs. Third, and most importantly, we investigated government subsidies related to childcare services taking care use, parental fees and tax deductions (for Flanders) into account and showed that government expenditures on formal childcare are unevenly allocated among families with young children in Flanders, especially benefiting the higher income categories. The combination of greater care use and the system of tax deductions (that applies also to childcare offered by non-subsidized care providers) undoes the pro-poor design of the tariff structure. The exact opposite happens in Sweden: although care use is evenly distributed among all families, the lowest incomes benefit almost twice as much from government subsidies than the highest incomes because of their lower parental contributions and the absence of a system of tax deductions. While both systems of public funding of childcare are intended to foster social inclusion, only the Swedish example manages to reach the most disadvantaged groups in society (e.g. concentration of lone parents among the lowest income groups), while the Flemish system does not.

We developed the argument that if childcare policies are mainly used by those already working, and scarce budgetary resources are allocated to those high up in the income distribution, genuine concern is warranted about its distributional consequences and its effectiveness as a productive social policy instrument. Our findings for Flanders indeed raise concern. Increasing government resources are used to fund services which mostly benefit the already well-off which means that the redistributive effect of those policies will be adverse, which is a validation of earlier findings on the effect of services in terms of Gini-coefficient (Esping-Andersen and Myles 2009; Marical et al. 2008; Matsaganis and Verbist 2009). While Saraceno in a recent contribution states that "*subsidized care (..) has an important redistributive effect*" (Saraceno 2011), we show that this assertion is not *automatically* true. But even if one only looks through an economic lens to services such as childcare and if we assume that the essential goal of services is not to redistribute income, but the promotion of equal access in relation to needs and demands (Kröger 1997), worries about its social distribution in Flanders are still warranted from an efficiency point of view: there is a large untapped labour market supply in the lowest income groups who do not have access to public childcare. We find that in Sweden all income groups have access to childcare places, which makes it possible for all mothers alike to engage in paid employment, net of other barriers to paid employment not taken into account in this study. Broadly speaking, we showed that the benefits of 'productive family policy' such as childcare are more complex than often assumed.

This brings us to our final point. By zooming in on two high-coverage countries with a similar history of childcare expansion, we are able to provide preliminary evidence that the success of a public childcare service in terms of social inequality and efficiency indeed depends on the mechanisms and the design of the service, i.e. the way government investment in childcare is allocated over families with children, not on the coverage rates per se. The greatest difference between Flanders and Sweden is the combination of guaranteed childcare places and sufficient supply in the latter, not the tariff system or parental costs for childcare. Yet, the vast differences in the total

budget allocated to public childcare between Sweden and Flanders shows that designing a comprehensive childcare system comes at a great financial cost (and supposedly a good deal of 'political willingness').

The above explorations should however not distract us from our main finding. Both from a *social inequality* and an *efficiency* point of view, the Swedish system of subsidized childcare for young children outperforms its Flemish counterpart.

CHAPTER 4

UNIVERSALISM UNDER SIEGE? EXPLORING THE ASSOCIATION BETWEEN TARGETING, CHILD BENEFITS AND CHILD POVERTY ACROSS 26 COUNTRIES*

4.1 INTRODUCTION

In times of economic hardship and fiscal consolidation, government are in dire need to find cost-efficient ways to combat rising child poverty rates (European Commission 2013a; TARKI 2010). Earlier research for developed welfare states has shown that child benefits play an important role in reducing child poverty. In this paper, we aim to reinvigorate our knowledge on the impact of child benefits on child poverty, in particular how child benefit systems should be designed in order to yield the most beneficial results in terms of poverty reduction.

The long-standing wisdom that universally designed benefits outperform targeted benefits in terms of poverty reduction has come

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under siege in recent years. On the political front, the World Bank, the European Commission, and the OECD all have encouraged a move towards "more and better" targeting to those in need, often accompanied by a call for more conditionality in benefit entitlement (European Commission 2013b; Hall 2007; OECD 2011a). The matter has also been at the centre of renewed scholarly attention. While Korpi and Palme's (1998) 'paradox of redistribution' that benefits targeted at the poor achieve less redistribution than universal benefits has long been regarded a settled matter, recent empirical studies for OECD and EU economies tend to find that targeting is not necessarily associated anymore with lower levels of redistribution (Kenworthy 2011; Marx, Salanauskaite and Verbist 2013). Investigations for non-OECD countries yielded mixed results. Ravallion (2009), for instance, found no meaningful relationship between targeting and poverty reduction for a benefit scheme in China. In a report commissioned by the World Bank, on the other hand, Coady et al. (2004) find that targeted programmes perform rather good, although conditional on policy specifics. The matter is clearly not settled yet, and should not be approached light-heartedly by academics. Once implemented, the choice between universalism or (more) targeting potentially impacts a large number of people, and support for targeting might also conceal an agenda for reduced social spending in the face of the economic crisis (Bradshaw 2012). This warrants an increase in the academic effort to further unravel the link between poverty reduction and benefit programme design.

Generally, previous studies suffer from two shortcomings. First, the analyses are often limited to the aggregate level which provides no guidance for the design of specific programmes (Moene and Wallerstein 2001). It could very well be the case that the appropriate balance between targeting and universalism differs for child benefits and pension schemes. Second, the level of targeting is almost always operationalised with an index of concentration, in which redistributive *outcomes* are measured rather than the impact of redistributive *intentions*. In this respect, targeting is interpreted as social transfers being more beneficial for lower incomes, irrespective whether this comes about due

to characteristics of the welfare system (Marx, Salanauskaite and Verbist 2013). This distorts the interpretation of the results. To enrich the earlier findings on the impact of child benefits on child poverty, an in-depth exploration of the impact of the policy design, i.e. the balance between universalism and targeting, is a desirable further step in empirical research. Therefore, the aim of this paper is to investigate (1) the relationship between child benefits and child poverty reduction; (2) whether a universal or targeted approach is more effective in terms of child poverty alleviation; and (3) the mechanisms explaining the link between (1) and (2). In doing so, we will take into account the general characteristics of the child benefit system, the size of the redistributive budget and the generosity of benefit levels.

We contribute to the existing literature, first, by focusing on a specific welfare programme instead of the whole tax and transfer system for a large number of countries (EU25 + Norway) using recent data; second, by devoting attention to the drivers of the redistributive outcomes; and third, by applying a methodology in which two research methods are united. We combine information on the institutional characteristics of child benefit systems by means of the so-called family model methodology with an empirical analysis of child poverty reduction by means of survey data. This allows to test the *intentions* of policies in relation to its redistributive *outcomes*. Our results shed light on child poverty reduction, the role of policy design and the impact of social transfers, which does not only contribute to our theoretical understanding of the nature of redistribution, but also feeds into policymaking and the matter of cost-efficiency of social transfers in times of fiscal consolidation.

Our paper is structured as follows. First, we review existing literature on the targeting-universalism debate, the impact of child benefits on child poverty, and the connection between the two. Second, we devote some space to a proper definition of the concepts used throughout this paper, and subsequently present our data and analytical strategy. Our empirical results are found in the fourth section. We end this piece with a discussion of our findings and their relevance for the broader academic and policy debate on the benefits of targeting.

4.2 BACKGROUND

4.2.1 Theoretical arguments

The debate on targeting versus universalism essentially boils down to the question "*who should get what type and degree of social protection?*" (van Oorschot 2002). The exact meaning of both concepts is not always clear, however, and they are often mixed up with related concepts such as means-testing or selectivity. Here, we distinguish between universalism as a system characteristic and universalism as benefit entitlement (Bergh 2005).

As a system characteristic, the opposite of *universalism* is *selectivity*. A benefit system is universal if the whole reference population is covered, while benefits are selective if eligibility is restricted to a specific category of the reference population based on certain conditions (e.g. having a low income). For example, child benefits are universal when all children are entitled, while they are selective when entitlement is limited to a specific group of children (e.g. poor children). Both are mutually exclusive: a benefit system is either universal or selective.

Targeting is concerned with the allocation of resources, i.e. how the budget is meant to be distributed (targeting intentions) or how it is actually distributed over beneficiaries (targeting outcomes). Remember that we are concerned with the targeting intentions, not with the outcomes. In this article, targeting intentions are captured by the variation in statutory benefit levels across income groups. If, say, low income groups are legally entitled to more generous benefits than higher income groups, the child benefit system is targeted towards lower incomes. By the same token, if higher income groups are entitled to higher benefits, the child benefit system is targeted towards higher incomes. This implies that selective benefits are always targeted, but also that targeting not necessarily implies selectivity. Targeting may occur within a universal benefit system as well, previously termed "targeting within universality" (Skocpol 1991). When all beneficiaries are entitled to equal benefit levels and no targeting occurs, benefit entitlement is

universal: every one of the reference group is entitled to exactly the same benefit amount. If benefit allocation is not targeted within universal benefit systems and both varieties of universalism are united, we speak of 'strict universality'.

Means-testing, then, is a technique to achieve targeting, a means to an end. Policymakers who want to target low-income households, for instance, might implement a means-test in the form of an income test. In this example, all families fulfilling the criteria of the income test, are eligible for the targeted benefits.

Whether benefits targeted at the poor or universal benefits are better to combat poverty has been a controversial issue for a long time, and theoretical arguments have been proposed favoring both sides (Kahn and Kamerman 1975; Orloff 1993; Skocpol 1991). On the one hand, proponents of targeting benefits to the poor argue that it entails a more efficient use of resources because social spending goes to those who really need it (Besley 1990). This resonates the criticism that the middle and higher income classes typically benefit more from social spending than the poor (Goodin and Le Grand 1987). Consequently, the availability of more resources for those who need it should result in higher benefit levels. On the other hand, proponents of universalism argue that universal benefits are superior over selective ones, because significant administrative costs, lower rates of take-up, and labour market and savings disincentives reduce their effectiveness in combating poverty (Atkinson 1998; Bradshaw 2012; Notten and Gassmann 2008). Moreover, targeting is believed to undermine broad-based political legitimacy and public support for the welfare state. Therefore the more benefits are targeted at the poor, the smaller the redistributive budget will be. That is the political economy argument invoked by Korpi and Palme in their seminal 1998 article. They showed that for the period between the mid-1980s and the early 1990s, universalism was associated with a higher degree of redistribution, and that this relationship was driven by the relative size of the redistributive budget.

In sum, two causal mechanisms driving the relationship between benefit design and poverty reduction might be at play: 1) universal benefit systems are superior because they have higher redistributive

budgets to allocate (the 'size' hypothesis); or 2) targeted benefits are superior because the available resources are distributed over a smaller group which allows benefits to be more generous; hence more effective in combating poverty (the 'generosity' hypothesis).

4.2.2 Previous research

Previous research has mainly focused on the redistributive impact of social spending as such. It has been shown extensively that large welfare states, i.e. welfare states with large redistributive budgets, tend to reduce poverty and inequality more effective than smaller welfare states (Korpi and Palme 1998; Nelson 2004), and that social spending is also relevant for explaining the variation in child poverty rates across countries (Bradbury and Jäntti 1999; Chen and Corak 2008; Gornick and Jäntti 2010). In particular child benefits have shown to be an important policy lever in combating child poverty (Bäckman and Ferrarini 2010; Corak, Lietz and Sutherland 2005; Immervoll, Sutherland and De Vos 2001).

Few studies investigate the design of child benefits in relation to poverty reduction, and these studies are often limited to one or a small set of countries. Notten and Gassmann (2008) use the change from universal to means-tested child benefits in Russia in 2000 as a case-study to compare the impact on poverty between the two strategies and find that universally provided child benefits are more effective in combating poverty. Above all, however, they show that generosity matters most: increasing benefit levels yields the highest impact on poverty. Matsaganis et al. (2006) use microsimulation techniques and find that the introduction of universal child benefit systems in the Southern European countries, which are characterised by selective child benefit systems (*infra*), would not necessarily lead to better poverty outcomes. They also find that more generous benefits have a larger impact on poverty, which obviously comes at a higher cost for the exchequer. Salanauskaite and Verbist (Salanauskaite and Verbist 2013) also make use of microsimulation techniques to test the effectiveness of family transfers in reducing child poverty for five new member states (with the main focus on Lithuania). They too find that size of the transfer budget

is of great importance, but that design matters as well. The study shows that strictly universal systems are least effective in reducing poverty, while mixed systems (targeting within universalism) yield better results, albeit dependent on specific design characteristics. Finally, a UNICEF commissioned study on the impact of a new child benefit programme in Mongolia finds that a targeted child programme resulted in leakage to non-poor households as well as in the exclusion of poor households (Hodges et al. 2007). The authors subsequently advocate a universal child benefit system.

All in all, these studies confirm the importance of size and generosity, in line with the hypotheses formulated, yet remain rather inconclusive when it comes to child benefit design: should child benefits be provided universally or targeted towards lower incomes? In this study, we aim to move forward this debate.

4.3 METHODS

4.3.1 Data

This paper draws on two data sources. First, data on targeting is provided by the CSB MIPI database, an expert sourced data base on minimum income protection provisions for different target groups in 25 EU countries and three US states (see Van Mechelen et al. 2011, for detailed information). CSB MIPI contains standard simulations of net disposable income for model family types in various income situations. Here we focus on a couple with two children aged 7 and 14 and the tax-benefit systems in operation in June 2009. We compare four income situations: a double earner family where both partners earn the average wage, a single earner family where one partner earns the average wage while the other is considered to be inactive (not looking for work), a similar family where one partner earns the minimum wage, and a family on social assistance. In order to gauge the value of the child benefit package, we deduct the net income of a hypothetical childless couple from the net income of a couple with children at the same earnings

level. The child benefit package includes child cash benefits whether selective or universal, tax benefits or allowances which reduce the direct tax liability in respect of children and any mitigation of local taxes in respect of children. Social assistance top-ups for low wage earning families that vary by the number and/or age of children, and housing benefits or allowances that take account of the presence of a child are not considered part of "child benefits" [20]. This is to keep consistency of terms between the two databases used in this study. A caveat should be mentioned regarding the age of the children in the model families. In some countries taxes and benefits for children tend to vary substantially by age, and by assuming older children we do not take into account those benefits that are in particular geared towards young children (Bradshaw and Finch 2002). Standard simulations of childcare costs, for instance, are particularly difficult to link to survey data because tariff systems are often set at the municipal level and support measures for child care costs frequently consist in tax subsidies.

The second data source we rely on is the EU-SILC 2010 (*European Union Statistics on Income and Living Conditions*) survey, with income reference year 2009 which matches the timeframe of the statutory MIPI data. The SILC dataset provides unique and comparable data on income and living conditions of European households and is maintained by Eurostat (although carried out by the statistical offices of the particular countries). Moreover, the dataset allows distinguishing child-related allowances from other components of the income package which makes it extremely suitable for our purpose[21]. More information about the SILC survey can be obtained from the Eurostat website.

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20 This definition distorts the picture of the child benefit package of social assistance recipients in Denmark and Finland because welfare claimants typically pay taxes in both countries. Given that couples with children receive higher welfare payments than childless couples, they pay higher taxes. The above definition takes into account the negative impact of higher taxes on the child benefit package, while ignoring the positive impact of higher assistance amounts. In order to correct for this, we have assumed the child tax benefit of social assistance recipients in Denmark and Finland to be zero.

21 Child-related allowances as recorded in EU-SILC not only consists of child allowances, child benefits, and child tax credits, but also includes birth,

Countries included in this study are Austria (AT), Belgium (BE), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Hungary (HU), Iceland (IS), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxemburg (LU), Malta (MT), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Slovak Republic (SK), Slovenia (SI), Spain (ES), Sweden (SE), and the United Kingdom (UK).

4.3.2 Measurement

Targeting

In contrast to previous studies (e.g. Korpi and Palme 1998; Marx, Salanauskaite and Verbist 2013), we do not rely on a concentration index to gauge the degree of targeting. Instead, we construct a targeting indicator (TI) on the basis of the CSB MIPI dataset which contains statutory information on child benefit levels for different income cases. Our aim is to capture the targeting intentions of a given country, i.e. how the design of the child benefit systems intends to allocate resources across income groups. For most of the countries, we have information on child benefit levels for four *income cases*: couples living on social assistance (SA), couples living on a minimum wage (MW), couples earning average wages (AW) and couples making twice the average wage (2AW)[22]. The four cases are ranked from low to high income levels. Several approaches have been proposed in the literature (Brady and Burroway 2012); here we use the average of the ratios of child benefits between income groups to calculate the targeting indicator TI. The ratio

adoption and maternity grants, and for some countries parental benefits as well. To assess their potential impact on our results, we have repeated our analyses excluding families with young children (below 3 years old) from the survey. The interpretation of the results does not change.

22 Exceptions are GR (no general assistance scheme in place), LU (no data on average wage earners) and DK, DE, FI, NO, and SE (no national minimum wage).

shows whether a lower ranked income case is entitled to higher benefits compared to the next higher ranked income case. Averaging has the advantage of taking not only the extremities (lowest and highest incomes) into account, but also what happens in between. Formally, the targeting indicator TI is of the form:

$$TI = 1 - \left(1/n \sum_{i=1}^{n} \frac{x_i}{x_{i+1}} \right)$$

With x_i denoting the income case *i*, and *n* being the number of income cases in a given country minus 1. In the expression x_{i+1}/x_i, income case x_{i+1} refers to the income case one rank above x_i. Subsequently, the sum of the ratios is averaged. Following international practice (e.g. the concentration index), the result is subtracted from 1 to reverse the sign, so that TI < 0 denotes targeting towards lower income families, TI > 0 denotes targeting towards higher income families, and TI = 0 denotes an equal child benefit for all income cases (strict universality, *supra*). The four income cases together with the values of the TI are to be found in table A1 in annex. By way of example, the calculation of the TI for Belgium is as follows (amounts are expressed in €PPP per month):

$$\frac{AW}{2AW} = \frac{330.5}{330.5} = 1; \frac{MW}{AW} = \frac{340.7}{330.5} = 1.03; \frac{SA}{MW} = \frac{396.5}{340.7} = 1.16;$$

So that

$$TI = 1 - \frac{1 + 1.031 + 1.164}{3} = -0.065$$

Which means that child benefits in Belgium are targeted towards the lower incomes. In particular, the lower income group gets on average 0.065 times higher a child benefit compared to the higher ranked income case.

Child poverty

To define poverty, we make use of the Foster et al. (1984) poverty index FGT(α), which is of the form:

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{n} max\left\{\left(\frac{z-x_i}{z}\right), 0\right\}^\alpha$$

With z denoting the poverty threshold, x the income of the household in which person *i* lives, *n* the number of individuals, and *a* being a parameter reflecting the poverty measure of interest. When *a=0*, P_0 gives the *poverty headcount ratio*, or the percentage of individuals living in a household with an income below the poverty threshold. Thus, following European practice, a child (under 18 years old) is defined as being poor when living in a household with an equivalized net disposable household income below a poverty line set at 60% of the national median equivalized household income (the European headline at-risk-of-poverty indicator, see Atkinson et al. (2002)). The net disposable household income equals the sum of the income of all members of the household, including social benefits, minus taxes and social insurance contributions. This disposable household income is equivalized using the modified OECD equivalence scale[23] to take into account economies of scale and to render households income comparable across households of different size. The child poverty rate for a given country is thus the headcount of the number of children living in a household below the poverty line (see Decancq et al., (2014), for further reading on poverty measurement). To test the robustness of our results, we complement the poverty rate with the *poverty gap ratio*, with $\alpha = 1$. P_1 gives the average income shortfall from the poverty line

[23] The modified OECD equivalence scale attaches a weight of 1 to the first adult, 0.5 to all other household members aged 14 and over, and a weight of 0.3 to all children under 14 years. The equivalized household income is obtained by dividing total household income by the sum of the individual equivalence weights.

amongst children living in poverty, and should be interpreted as the 'depth' of poverty.

Poverty reduction

To measure the impact of child benefits on child poverty rates, we apply the so-called 'standard approach' (Whiteford 1997). The standard approach is to compare the poverty rate before and after including child benefits into the equivalized net disposable household income, holding the poverty line constant. The relative difference between the before and after poverty rate is the poverty reducing impact of child benefits. As such, the actual income distribution is compared to a hypothetical counterfactual income distribution in which government intervention in the realm of child benefits is absent. Although often criticised (Bergh 2005; Jesuit and Mahler 2010), the standard approach allows to compare countries based on a single metric that is easy to interpret. Formally, our measure of the relative poverty reduction effectiveness (RPRE) of child benefits takes the following form:

$$RPRE = \frac{P_{0_{pre}} - P_{0_{post}}}{P_{0_{pre}}} * 100$$

Where P_{0pre} = poverty risk calculated on equivalized net disposable household income less child benefits, and P_{0post} = poverty risk calculated on equivalized net disposable household income including child benefits. The indicator is expressed in percentage reduction of child poverty. A similar approach is followed for the calculation of the relative poverty gap reduction effectiveness (RGAPRE) of child benefits:

$$RGAPRE = \frac{P_{1_{pre}} - P_{1_{post}}}{P_{1_{pre}}} * 100$$

Where P_{1pre} = poverty gap ratio less child benefits, and P_{1post} = poverty gap ratio including child benefits. Other scholars have also

employed an absolute poverty reduction effectiveness measure, defined as the percentage point difference between pre and post poverty rates (e.g. Sainsbury and Morissens 2002). Although informative, such absolute measure is sensitive to the pre-transfer poverty rate. As such, it measures not only poverty reduction, but also captures the starting point[24]. Here, our focus is on poverty reduction as such.

Explanatory variables: size and generosity

Finally, two hypotheses regarding the causal mechanisms through which either universal or targeted benefits reduce poverty are considered in this study. The first relates to the size of social expenditure; the second to the generosity of benefits. To measure *size of the redistributive budget*, we calculate for every country the total sum of child-related benefits as measured in EU-SILC. This amount is subsequently related to each country's gross domestic product (GDP). An advantage of relying on survey (SILC) data and not on administrative data (for instance available in the European system of integrated social protection statistics ESSPROS), is that our indicator of size represents the actual amount of spending that is used to calculate RPRE and RGAPRE. However, the correlation with administrative data is strong ($r = 0.82$) and the results do not substantially differ when relying on administrative instead of survey data.

Second, *generosity of benefit levels* is gauged as the average benefit level for the lowest income groups (SA and MW), expressed as percentage of the poverty line (see Nelson 2013, for a similar approach). We focus on the lowest income groups, and not on average benefit levels, because it is explicitly hypothesised that targeting will correlate with higher benefit levels for the lowest incomes. We rely on the institutional MIPI data

[24] This is not a trivial matter, because the choice of indicator determines ranking of countries. Suppose a country A reduces poverty from 80 to 60 per cent, while country B reduces poverty from 10 to 5. According to the absolute measure of poverty reduction, country A would rank first, although it is highly questionable whether that country is actually doing better than country B. The RPRE would rank country B first with a score of 50% and country A at 25%.

and not on the SILC survey, because it is not straightforwardly possible to operationalise the institutional information, i.e. the four income cases, in the latter (see the discussion on intentions versus outcomes above). However, as a robustness check we have tested an alternative approach in which we have calculated the average child benefit level per child living in a poor family from the EU-SILC. This indicator too correlates strongly with the MIPI indicator of generosity (r = 0.78) and the interpretation of the results does not change. Both measures of size and generosity used in the analyses below are listed in Table A-1 in annex.

4.4 RESULTS

4.4.1 Characteristics of child benefit systems

Table 4-1 distinguishes between three groups of countries on the basis of benefit entitlement on the one hand, and the system characteristic of child benefit systems on the other: countries with selective child benefit systems, countries with mixed systems (targeted benefits within universal systems) and those with strictly universal systems (universal benefits within universal systems)[25]. Figure 4-1 ranks the countries in our sample according to the degree of targeting. To this end, we compare child benefits levels of double earners on twice average wage (2AW), single earners on average wage (AW), single earners on minimum wage (MW) and families on social assistance (SA) (see above).

Only 7 out of the 26 countries under investigation operate selective benefit systems. Countries where eligibility to child benefits is limited to a specific group of beneficiaries are Southern European countries like Italy, Portugal, and Spain, and a number of Eastern European countries such as the Czech Republic, Slovenia, Poland, and Lithuania. Selective benefit systems are targeted by definition, but there is great variety in

[25] It should be noted that a number of countries have implemented (temporary) austerity measures in their child benefit systems during the crisis. Some of these measures are not taken into account in our classification since we report on the June 2009 situation.

the degree of targeting across these systems. A crucial factor is the strictness of the means-test involved. In Czech Republic, for instance, one-earner families living on minimum wages tend to receive income related cash benefits whereas one-earner families with an average wage do not. By contrast, in countries like Italy, Portugal, Slovenia Poland and Lithuania even two-earner families with average earnings are entitled to income related benefits.

Table 4-1 Classification of child benefit systems, 26 European countries, 2009

		System **characteristic**	
		Selective	*Universal*
Benefit allocation	*Targeted*	IT, PT, ES, CZ, SI, PL, LT	AT, BE, EE, FR, GR, IE, LU, LV, NL, RO, SK, UK
	Universal	/	DK, FI, SE, NO, HU, DE, BG

In most countries, child benefits are provided within a universal framework. The universal systems in Belgium, Greece, France and Germany, however, are exceptions to some extent. In Belgium and Greece working families are entitled to employment-based rather than universal non-income related benefits (while non-working families usually receive income related benefits). In France only families with 2 or more children are entitled to non-income related cash benefits. Germany, finally, complemented its universal cash benefit scheme with an optional model of tax credits and tax allowances in 1996. Families with children are taxed in the most favorable way, which is by making use of the tax credit in most cases. This model is functionally however very similar to strictly universal child benefits. Universal benefits may be targeted by granting supplements to specific social groups. In Belgium, for example, vulnerable groups like single parents and the long-term unemployed receive more generous child benefits. In France, the Netherlands, Ireland, Bulgaria and Romania child benefits are targeted to low income families through the provision of additional cash benefits on top of universal benefit payments.

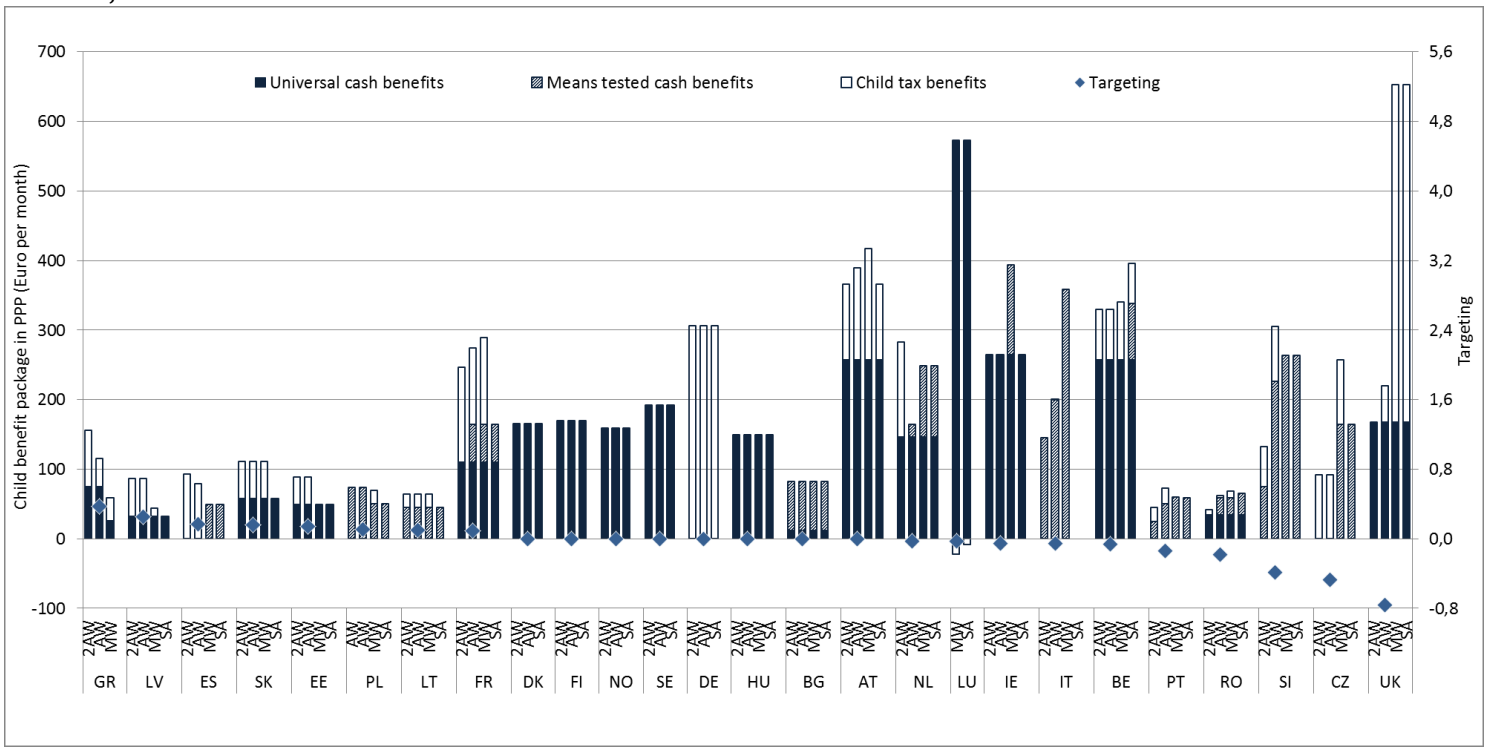
In an increasing number of countries tax credits and tax allowances contribute to the degree of targeting. There is evidence that during the

past decade child benefits have gradually been reallocated towards the tax system, termed the 'fiscalization' of child benefits (Bradshaw and Finch 2002; Ferrarini, Nelson and Höög 2013; Immervoll and Pearson 2009). The income gradient of child tax benefits largely depends on the type and the design of the scheme. An important distinction to make is between wasteable and non-wasteable tax credits. Low income families often fail to benefit from non-wasteable tax credits or tax allowances, simply because they pay no taxes. Refundable or wasteable tax credits, however, are functionally very similar to cash benefits. These tax credits can be strictly universal if the amount of the tax credit is flat rate, which is the case in Austria and Germany, or they can be targeted if amount varies according to income (the United Kingdom is a case in point).

There are few countries where child benefits are strictly universal: the Nordic countries, Germany and Hungary.[26] In Bulgaria too, the targeting index is zero. Although a selective benefit system is in place, benefits are flat rate and the means-test only excludes families that are relatively rich (earning more than twice the average wage, not included in the MIPI data).

[26] In Finland housing allowances and social assistance top-ups for low income families increase the selectivity of child benefit packages (Van Mechelen and Bradshaw 2013). These income elements are however not included in Figure 4-1.

Figure 4-1 The size and composition of the child benefit package at various income positions (couple + 2 children, aged 7 and 14), 26 countries, 2009



Source: CSB-MIPI (Van Mechelen et al, 2011). *Note*: there is no statutory minimum wage in DE, DK, FI and NO. The minimum wage scenario for Italy is based on Monthly contractual wage for the lowest qualification level in the fur and leather sector. GR lacks a social safety net for able-bodied persons.

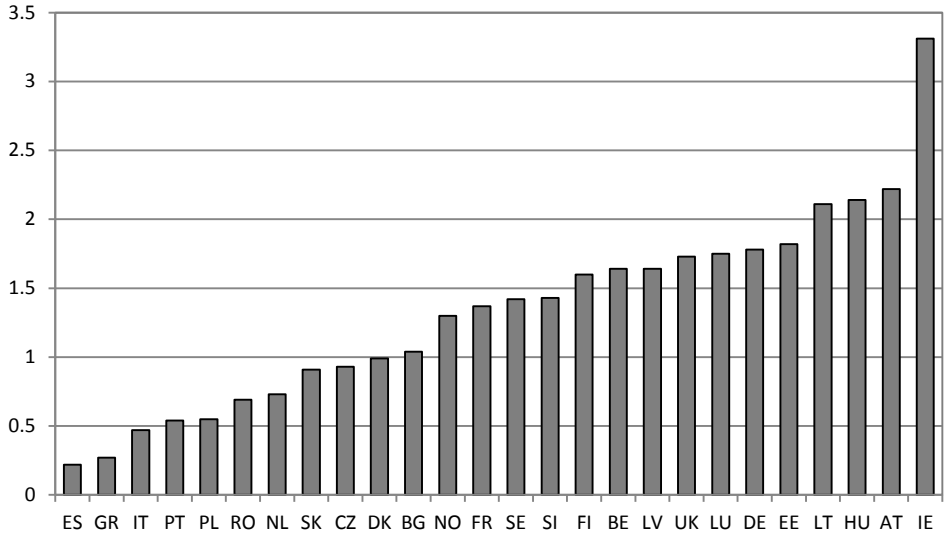
As shown in Figure 4-1, the child benefit system in the United Kingdom is most targeted towards lower incomes. Here, universal cash benefits are combined with generous income-related refundable tax credits for children. The top five performers in terms of targeting towards low income families further consist of the Czech Republic, Slovenia, Romania and Portugal. All these countries have selective systems (except Romania). In a substantial number of countries the targeting index is above zero, meaning that their child benefit systems are targeted towards higher income families. This is the case in France, Lithuania, Slovak Republic and most particularly in Spain, Latvia and Greece. These countries illustrate the pitfalls of non-refundable tax benefits: families on low pay profit less from these tax benefits because they pay less taxes.

It is noteworthy that in many of the countries in our sample, child benefits do not systematically increase as one moves down the income distribution, even if benefit systems are relatively well-targeted at low income families. In Italy, for instance, the selective benefit system is contributory and not available to families with insufficient contribution records for social insurance benefits, therefore excluding many social assistance recipients. Consequently, the most generous child benefits are not targeted at the most vulnerable families in general, but to those on low pay in particular. Likewise, the Irish 'Family Income Supplement' is an employment based scheme that gives extra financial support to people on low pay. These measures belong to the set of so-called in-work benefits that are increasingly promoted as a solution for the problem of inactivity traps. Again, work-poor families are put at a disadvantage. In some countries there are anomalies in the variation of child benefits over the income distribution caused by the design of the tax system. In Czech Republic, for example, the degree of targeting built into its system of selective cash child benefits is partly neutralized by the tax benefits for families in the labour market.

Finally, Figure 4-2 shows the size of the redistributive budget for each country in our sample. Again, between-country variation is large. Ireland is the biggest spender, with a total budget for child benefits of 3,3% of GDP. Austria, Hungary, and Lithuania spend around 2% of

GDP, while in the majority of countries between 1 and 2% of GDP is spent on child benefits. The Mediterranean countries Spain, Italy, Greece, and Portugal dedicate only 0,5% of GDP or less on child benefits.

Figure 4-2 Size of the redistributive budget for child benefits (% of GDP), 2009

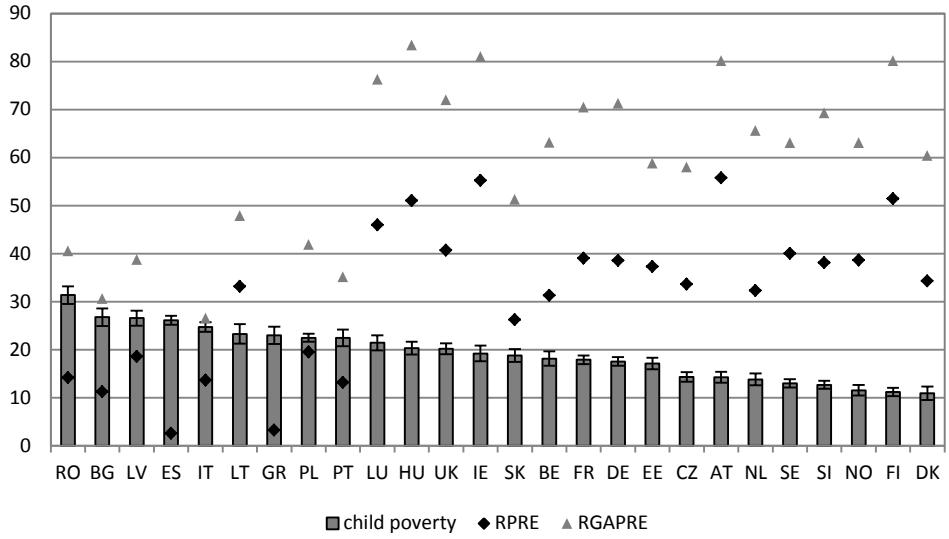


Source: own calculations on EU-SILC 2010. *Note* : income reference year is 2010 for UK; for Ireland, the reference period is the twelve months before the survey was carried out.

4.4.2 Child poverty, RPRE and RGAPRE of child benefit systems

Figure 4-3 reports child poverty rates for the countries in our sample as well as our indicators of poverty reduction (RPRE) and poverty gap reduction (RGAPRE). First of all, we observe great diversity in child poverty rates, ranging from over 30% in Romania and around 25% in Bulgaria, Latvia, Spain and Italy, to about 10% in Norway, Finland and Denmark.

Figure 4-3 Child poverty rates and RPRE, European countries, 2009



Source: own calculations on EU-SILC 2010. *Note* : income reference year is 2010 for UK and the twelve months before the survey was carried out for Ireland.

Second, regarding RPRE, the figure shows that child benefits in some countries only have a negligible impact on child poverty rates (Spain, Greece), while in others child poverty rates are more than halved (Ireland, Austria, Finland, Hungary). A similar pattern can be discerned regarding RGAPRE. It is also clear that, generally speaking, countries with high child poverty rates have lower levels of RPRE (r = -0.66) and RGAPRE (r = -0.64) and vice versa. Where child benefits are not very effective in reducing child poverty, the latter is usual high. This is in line with previous research demonstrating the importance of child benefit systems in reducing child poverty. However, it is also clear that child benefits are not the only important factor at play. Denmark and Norway, for instance, have among the lowest child poverty rates but not the most effective child benefit systems. This relates to contextual factors such as labour market performance but also to the availability of social transfers and services that are not specifically addressed to children but help reduce poverty for all families (Corak, Lietz and Sutherland 2005). Indeed, countries with a welfare system capable of mitigating poverty for children generally shape beneficial circumstances

for all citizens alike (Brady 2009). In the next section, we relate the design of child benefit systems (TI) to RPRE and RGAPRE for all countries in our sample.

4.4.3 Targeting and child poverty reduction

Figure 4-4 and Figure 4-5 show the relationship between targeting and poverty reduction and targeting and poverty gap reduction respectively. The targeting index takes a value between -1 and 1, whereby a positive value means that higher income families tend to receive higher benefits, a negative value that lower income families tend to receive higher benefits while a value of 0 represents strict universality.

Figure 4-4 RPRE and TI (r = -0.28)

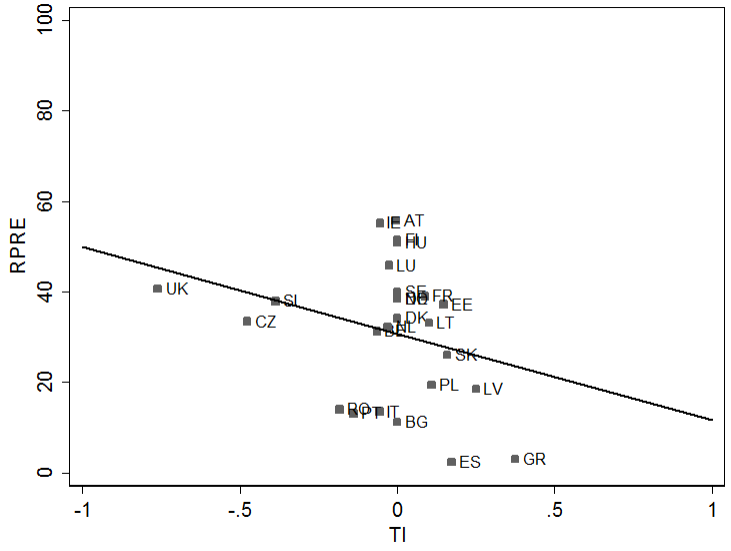
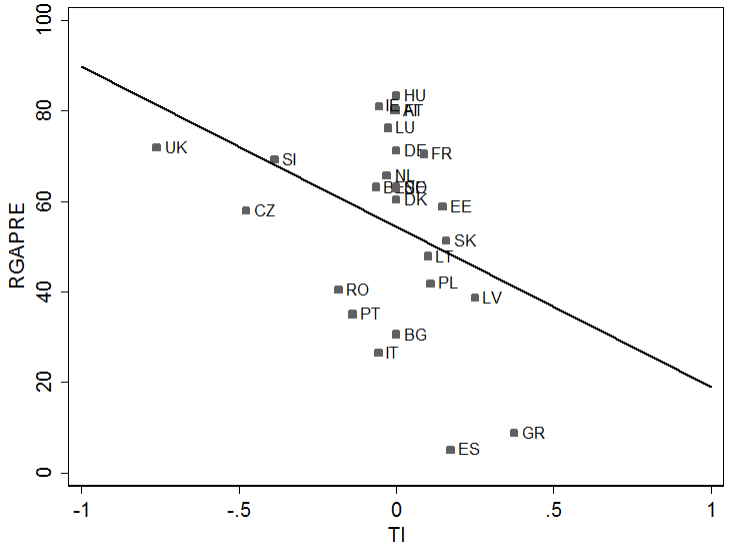


Figure 4-5 RGAPRE and TI (r = -0.37)



Prima facie, the scatter plots call into the question the assertion that universalism is associated with higher levels of poverty reduction. Although the correlations are rather weak, the sign of the coefficients suggests that the more child benefits are targeted to the lower incomes, the more effective they are in reducing poverty (RPRE) and reducing the poverty gap (RGAPRE). Vice versa, countries allocating more resources to the higher income groups, such as Greece, Spain, and Latvia, are underachievers in terms of both RPRE and RGAPRE. We also observe, however, that several countries are concentrated around a TI-value of zero and that these countries display great variety in RPRE and RGAPRE. Some of these countries (Austria, Ireland, Finland, Luxemburg) outperform the most targeted country (the United Kingdom), while others (Bulgaria, Italy) hardly do better than Spain and Greece. This warrants further qualification, and to gain further insight we now investigate the drivers of poverty reduction.

In the theoretical section (*supra*), we outlined two hypotheses supporting either universalism or targeting as being most effective in reducing child poverty. First of all, the *size* hypothesis predicts that the size of the redistributive budget relates to poverty reduction, and that universal benefit programmes tend to have larger budgets which

explains their good performance. Figure 4-6 shows the relationship between size of the redistributive budget and RPRE, Figure 4-7 the relationship between size and RGAPRE. The strong and positive correlations demonstrate that the redistributive budget is indeed closely related to poverty reduction. The more governments spend on child benefits, the better they are able to reduce child poverty and to mitigate the poverty gap. It could thus be the case that the positive association between targeting and poverty reduction we observed in Figure 4-4, is in fact driven by the total amount of resources spent. Figure 4-8 plots the relationship between TI and size of the budget. The scatterplot demonstrates that the association between both variables is almost non-existent: although countries targeting towards higher income groups have the lowest budgets and countries targeting lower income groups tend to have higher budgets, the highest budgets are actually found in countries characterised by a universal system with only a limited degree of targeting (targeting within universalism) or strictly universal benefits. This is in line with the size hypothesis.

Figure 4-6 RPRE and size of the redistributive budget (r = 0.82)

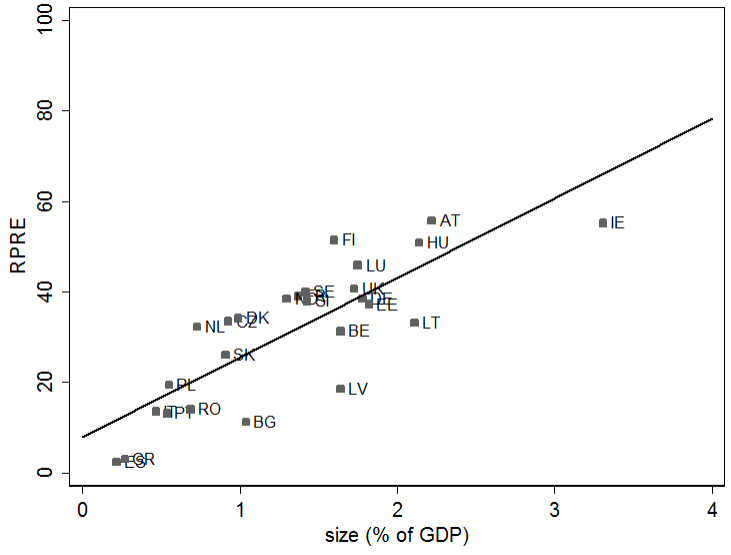


Figure 4-7 RGAPRE and size of the redistributive budget (r = 0.74)

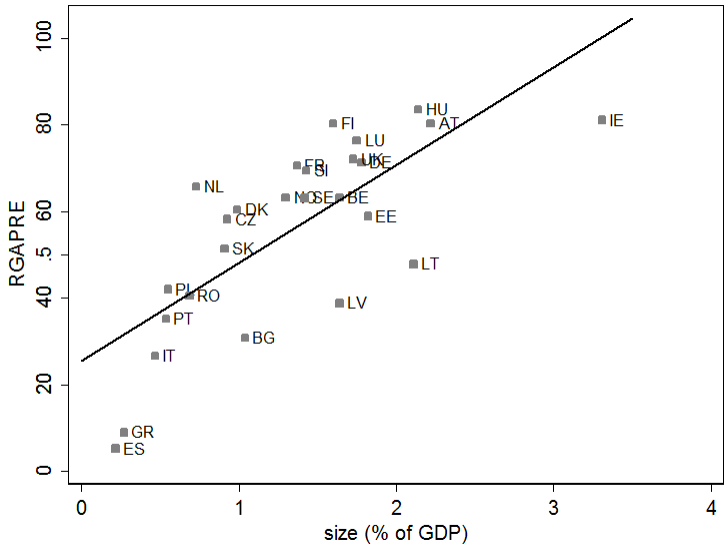
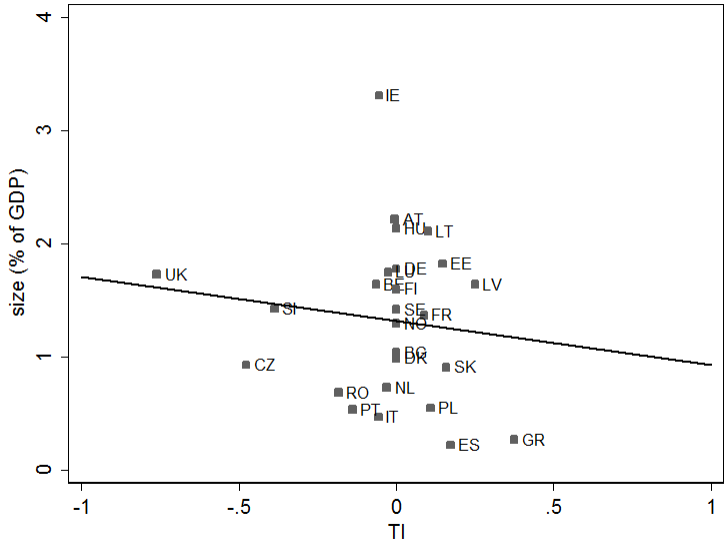


Figure 4-8 Size of the redistributive budget and TI (r = -0.13)



Second, the main argument invoked by proponents of targeting is that benefit levels will be higher for low incomes because resources are deployed efficiently, i.e. they are allocated to those people who really need it. To assess the validity of this *generosity* hypothesis in the case of child benefits, Figure 4-9 and Figure 4-10 show the relationship between RPRE and generosity of benefit levels and RGAPRE and generosity,

respectively. The correlation is positive and of medium strength, suggesting that the more generous benefits for lower income groups are, the better they succeed in reducing child poverty and closing the poverty gap. Notwithstanding this association, countries reporting similar levels of generosity often display considerable variation in RPRE (Romania and Germany, but also Bulgaria and France are cases in point). Figure 4-11, then, displays the association between TI and generosity: the correlation is strong and negative, suggesting that the generosity hypothesis holds true in the case of child benefit systems (without outlier UK, the correlation coefficient is still -0.62). Targeting towards lower incomes is associated with higher benefits for the lower income groups. This, in turn, leads to better RPRE and RGAPRE.

Figure 4-9 RPRE and generosity of benefit levels (r = 0.46)

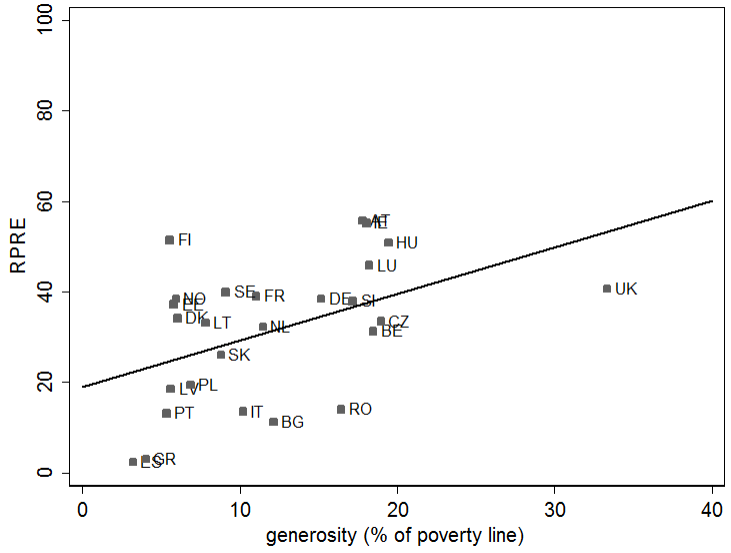


Figure 4-10 RGAPRE and generosity of benefit levels (r = 0.54)

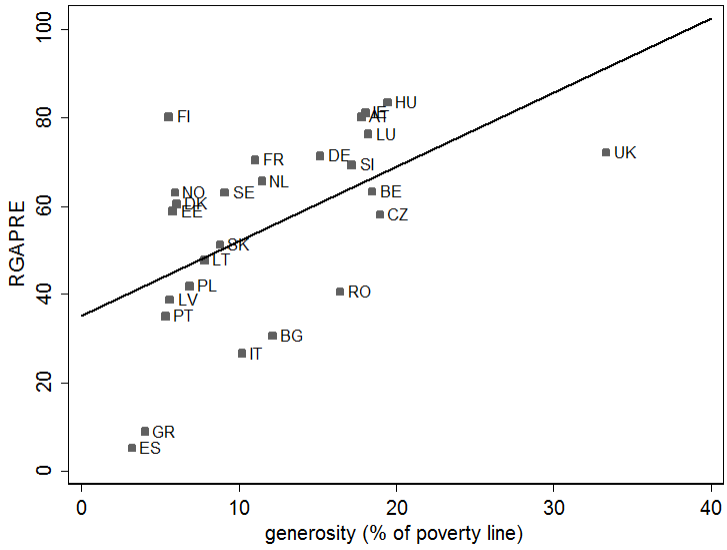
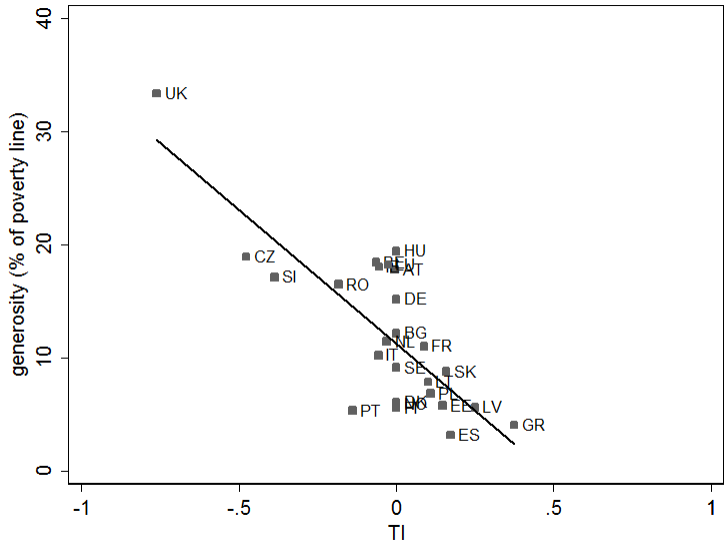


Figure 4-11 Generosity of benefit levels and TI (r = -0.78)



In sum, we find that size of the budget is positively related to RPRE and RGAPRE, and that universal child benefit systems have the highest redistributive budget. We however find that generosity of benefits for low income families is positively related to RPRE and RGAPRE as well, and that targeted child benefit systems tend to have the highest benefit

levels. In fact, our results suggest that both channels through which child poverty reduction ought to be related to the design of child benefit systems (size of the budget and generosity of benefit levels) are simultaneously at play. To make sense of this, we will further disentangle these results in the next section.

4.4.4 One size fits all?

In the theoretical section, we distinguished between selective and universal child benefit systems. Does the basic architecture of the benefit programme impact on the correlation between targeting and poverty reduction? Figure 4-12 shows the relationship between RPRE and TI for selective child benefit systems; Figure 4-13 between RGAPRE and TI. Figure 4-14 shows the relationship between RPRE and TI for universal child benefit systems; Figure 4-15 between RGAPRE and TI.

Figure 4-12 RPRE and TI, selective benefit systems (r = -0.63)

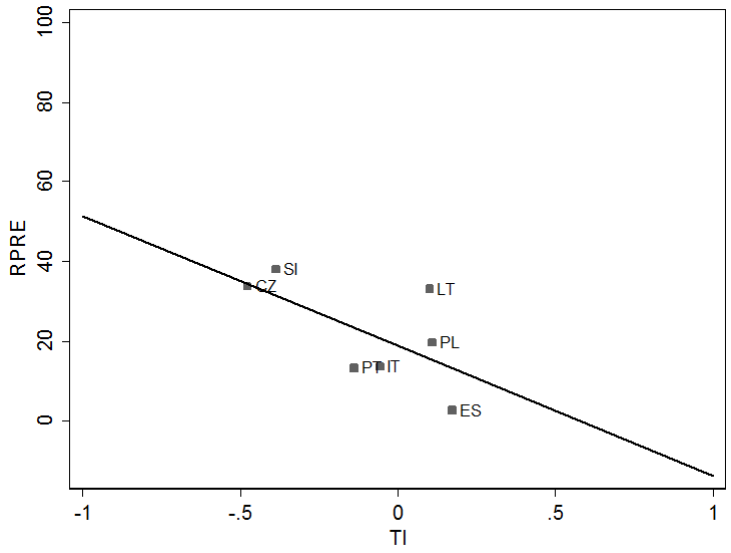


Figure 4-13 RGAPRE and TI, selective benefit systems (r = -0.72)

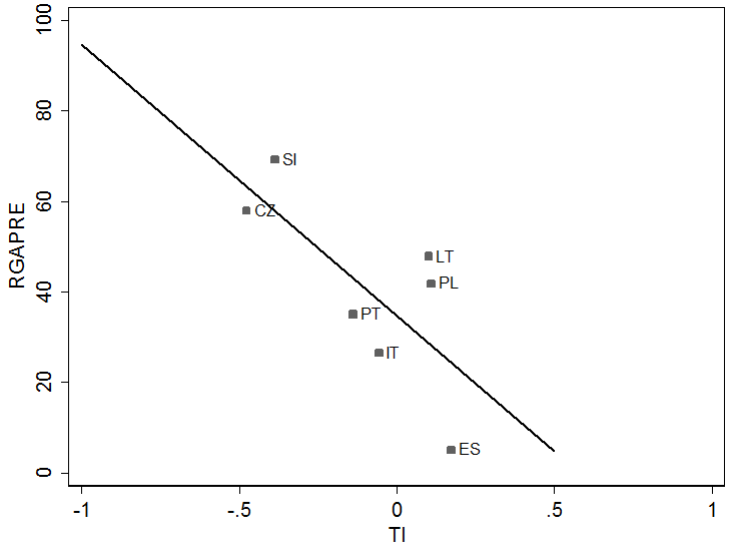


Figure 4-14 RPRE and TI, universal benefit systems (r = -0.31)

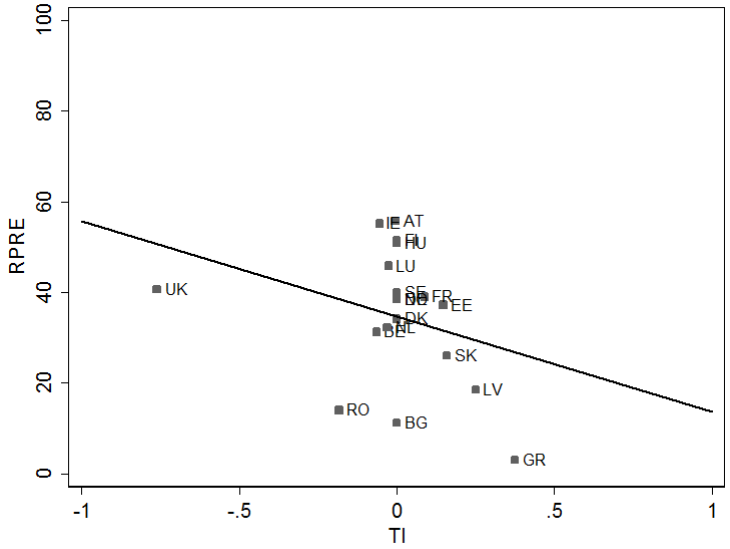
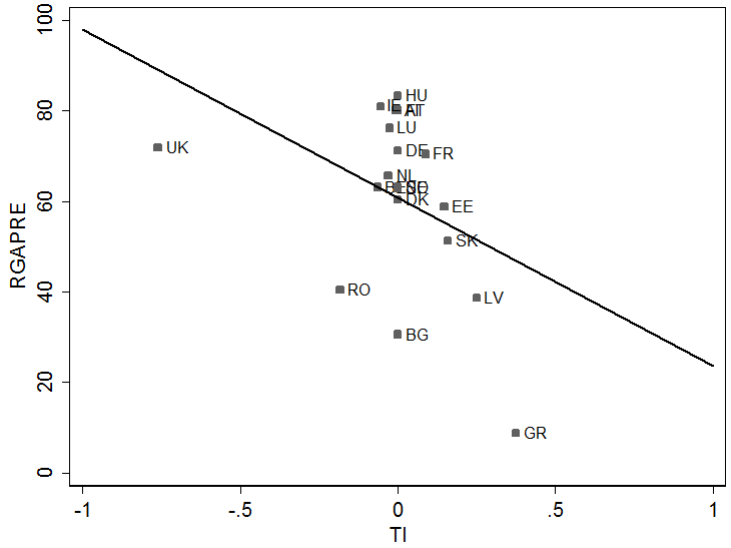


Figure 4-15 RGAPRE and TI, universal benefit systems (r = -0.42)



Within selective child benefit systems, the relationship between TI and RPRE (r = -0.63) and TI and RGAPRE (r = -0.72) is strong. The more one targets towards lower incomes, the better one is able to reduce poverty. For this set of countries, poverty reduction is associated with both size (r = 0.82) and generosity (r = 0.79). Targeting, however, is strongly associated with generosity (r = -0.90) but much less with size (r = -0.18). Indeed, the most targeted selective countries Czech Republic and Slovenia spend much less (1 and 1,4% of GDP respectively) than Lithuania (2,1% of GDP), that spends about as much as Austria and Hungary but targets its benefits towards higher income groups. As a result, benefits for lower income groups are not very generous in Lithuania (see Table A-1 in annex). This suggests that targeting towards lower incomes might be a cost-efficient way to achieve child poverty reduction within selective systems, notwithstanding the fact that selective child benefit systems generally achieve less poverty reduction compared with universal ones.

Within universal child benefit systems, we also find an association between TI and RPRE (r = -0.31) and RGAPRE (r = -0.42), but the strength of the relationship is weaker and the variety is greater. Moreover, the correlation is driven by Greece. Without Greece, the

alleged relationship between targeting and poverty reduction almost disappears (RPRE: r = -0.12; RGAPRE: r = -0.22). Greece is not only an outlier in statistical terms, but also the odd one out within universal systems. Working families are entitled to contributory child benefits while non-working families can rely on non-contributory but means-tested benefits. The poverty reducing capacity of the Greek system therefore depends strongly on how closely both systems are aligned and on the actual operation of the selective benefit scheme (take-up, administrative complexity et cetera).

For the set of countries with a universal child benefit system, we find that not generosity but size is the strongest determinant of poverty reduction. Formally, RPRE and RGAPRE are strongly associated with size of the budget (r = 0.77 and 0.71 respectively) but in contrast to selective benefit systems the correlation between generosity of benefit levels and poverty reduction is less strong (RPRE: r = 0.35; RGAPRE: r = 0.44). Indeed, countries displaying the most generous benefit levels, such as the United Kingdom (Figure 4-1), do not necessarily reduce child poverty to the highest extent. Or, otherwise stated, some countries with lower benefit levels for low income families manage to reduce child poverty more effectively. How can this be? First of all, it could be related to the type of benefit. Figure 4-1 shows, for instance, that targeting to the lower incomes in the United Kingdom is achieved through the tax system, while all income cases are entitled to a relatively low universal cash benefit. Countries with lower benefit levels and lesser degrees of targeting but higher levels of RPRE, such as Ireland and Austria, rely on higher levels of cash benefits. The fiscalization of child benefits we mentioned *supra* could thus be an important trend in this respect. Further research is however warranted to disentangle the complexity of child tax benefit schemes, and how their peculiarities impact on child poverty reduction. Second, it could also be the case that the issues of administrative complexity and non-take-up, which are often invoked by proponents of universal benefits, are at play. We report here on the *de jure* situation (targeting intentions), but it may be the case that the *de facto* situation (targeting outcomes) is rather different. This issue too should be taken into account in further research

endeavours, for instance by combining targeting intentions with outcomes in one analytical framework.

Moreover, the case of Greece demonstrates the importance of the direction of targeting. Not only is Greece a low spender (Figure 4-2), it is also a country with a positive targeting coefficient which means that higher income groups are entitled to higher child benefits than lower income groups. Indeed, countries with a positive targeting coefficient (Greece, but also Spain, Poland, Latvia, Slovak Republic, Estonia, Lithuania and France, see Figure 4-1) are the actual drivers of the relationship between targeting and poverty reduction. If we only take strict universal countries or countries with benefits targeted towards lower incomes (negative coefficient) into account, the relationship between TI and RPRE disappears altogether (RPRE: $r = 0.06$; RGAPRE: $r = -0.01$). It is not that targeting towards lower incomes is good for poverty reduction *per se*; rather it is the case that targeting towards higher incomes is bad for poverty reduction.

The further qualification of our findings we present here does not mean, however, that targeting towards lower incomes should be avoided at all cost. Instead our results point to the fact that targeting may or may not be beneficial for poverty reduction, depending on how it is done. As a matter of fact, the countries with the highest levels of RPRE, Austria and Ireland, are examples of targeting within universalism: benefit levels vary for different income groups. They are characterized by high levels of spending (Figure 4-2) *and* generous benefits levels for low income groups (Figure 4-1).

4.5 Conclusion

Let us begin the summary of our results with the central question at stake: "*should [social policies] be organized for the poor only or should the welfare state include all citizens?*" (Korpi and Palme 1998). Alas, there is no straightforward answer to this question. In the case of child benefits and their impact on child poverty, the correct answer is that 'it depends'.

First of all, for a set of 26 countries, we find that targeting towards lower incomes is associated with higher instead of lower levels of poverty (gap) reduction, a finding that is in line with most recent research findings that the paradox of redistribution is not necessarily valid anymore. While investigating the drivers of this relationship, we found that size of the redistributive budget is strongly and consistently associated with higher levels of child poverty reduction, and that universal systems tend to have the highest budgets (confirming the size hypothesis). However, we also find that targeting is associated with more generous benefit levels for low income families, and that generosity is related to higher levels of child poverty reduction as well (confirming the generosity hypothesis).

Second, system characteristics are an important factor to take into account. Within selective systems, targeting is strongly and consistently related to a better performance in terms of child poverty reduction. However, selective systems generally are underachievers, associated with low redistributive budgets. In such cases, our results suggest that targeting towards lower incomes might be the only feasible way to reduce child poverty. Within universal systems, the relationship between targeting and poverty reduction is weak and less consistent.

Third, the direction of targeting is important. In some countries, child benefits are targeted towards higher income groups, mainly through tax benefits that put the lower income families at a disadvantage. These countries are low spenders and underachievers in terms of poverty reduction. This is an important factor in explaining the relationship between targeting and poverty reduction.

Finally, the best performing countries are actually countries with a system of targeting within universalism. In these countries, two channels of poverty reduction are simultaneously at play: they combine high redistributive budgets with higher benefit levels for low income families. This leads us to conclude that targeting as such might not be the problem; rather it is important how targeting is done.

CHAPTER 5

PUTTING THE CHILD-CENTRED INVESTMENT STRATEGY TO THE TEST: EVIDENCE FOR THE EU27*

5.1 INTRODUCTION

The social, political and economic environment in which European welfare states have to operate has changed dramatically since the oil crisis of 1973, which is considered a major turning point in the transformation of industrial societies into post-industrial societies. Interestingly however, *prima facie* evidence suggests that welfare states have been remarkably robust, 'immovable objects', even, in these past four decades. This certainly appears to be the case if their evolution during this period is compared with the welfare state transformations that occurred in the 'golden' post-war period (Pierson 1998). The picture of the welfare state as a 'frozen landscape' is at best only a partial truth, however, because there have been important changes in the traditional welfare settlement in qualitative terms, both at the level of policies and at the level of ideas. Governments began to rethink prevailing (social) policy paradigms and recalibrated their social welfare

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programmes to meet the new risks and realities stemming from profound changes such as economic globalization and international competition, demographic changes, the shift from manufacturing to service employment, changing family relationships and the massive entry of women into the labour market, and new migratory flows[27]. Incrementally at first, but more explicitly since the mid-1990s, a common focus on increasing employment, human capital investment and cost containment has been developed, underpinned by European discourse and policy (Cantillon 2011; Hemerijck 2011). These qualitative changes have been designated as the 'social investment turn' in social policy (Esping-Andersen et al. 2002). This 'social investment perspective' is at present the dominant scholarly paradigm for making sense of the current welfare settlement.

Basically, the core idea underlying social investment is that governments should prepare people for the changed employment circumstances in post-industrial labour markets. While social policy traditionally aimed to protect people *from* the market, the idea is now to 'empower' people in order to integrate them *into* the market (Jenson and Saint-Martin 2003). The mainstay of such strategy is human capital investment, giving citizens the opportunity to grasp labour market opportunities themselves, rather than relying on passive cash transfers to repair damage done by the market. In sum, social policy ought to invest in people in order to make them resilient and enhance their capacity to grab the available opportunities in a changed labour market, before they become dependent on benefits (Cantillon and Van Lancker 2013)[28].

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27 Summarising forty years of societal transformation and its impact on risk structures in an exhaustive and balanced way is an exercise riddled with difficulties and most likely a mission impossible. Hence I refer the interested reader to Bonoli (2005); Esping-Andersen et al. (2002); Hemerijck (2012a); Morel et al. (2012); and Taylor-Gooby (2004) for further reading on the welfare state transformations, new social risks and the social investment paradigm.

28 It should be noted that proponents of the social investment idea, such as Esping-Andersen, insist that social investment is only one part of the welfare settlement and that an adequate income is a precondition for any longer-term

In this respect, children and childhood are key to any successful investment strategy, not only because the sustainability of the welfare state hinges on the number and productivity of future taxpayers, a point emphasized by Vandenbroucke, Hemerijck and Palier (2011), but also, and maybe foremost, because inequalities in childhood pose a real threat to the accumulation of human capital and are the root cause of unequal opportunities in the labour market and later life. To quote Esping-Andersen in his highly influential contribution on this issue, a child-centred investment strategy "*must be a centre-piece of any policy for social inclusion*" (Esping-Andersen 2002). The linchpin of such a strategy is the provision of high-quality early childhood education and care (hereafter 'childcare'). The idea is that childcare services not only help to achieve social inclusion through the labour market, by allowing mothers of young children to engage in paid employment and balance their work and family duties, but also further the accumulation of human capital of children by providing them with a high-quality and stimulating environment. Both dimensions should be particularly beneficial for children from disadvantaged backgrounds, ultimately breaking the intergenerational chain of poverty. The child-centred investment strategy is heavily influenced by the assumption that public investments early on yield significant returns in later life in forgone benefits and reduced crime rates (Carneiro and Heckman 2003).

The idea of investment-through-childcare is not a mere academic exercise, but impacts on real-life policymaking. The need to increase childcare provision is propagated by influential international organizations such as (UNICEF 2008) and the OECD (OECD 2001; OECD 2006; 2011b), and is also prominently on the European agenda. At the Barcelona Summit in 2002 as part of the European Employment Strategy (European Council 2002), European member states adopted explicit childcare targets to provide childcare by 2010 to at least 33% of children under 3 years old and to at least 90% of children between 3 and

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investment strategy. In this view, social investment and social protection are mutually reinforcing (Vandenbroucke and Vleminckx 2011).

mandatory school age. At present, for the EU, childcare is seen as a means to reach the EU2020 targets for employment, early school leaving, and poverty (chapter 1), adhering to the investment ideal of mitigating inequalities and preparing productive citizens. Obviously, not all public investment in childcare services is *necessarily* linked to the social investment idea, but it is safe to say that childcare expansion in the European Union (EU) is at least *informed* by the child-centred investment strategy (Morgan 2012).

In this article, I critically assess the child-centred investment strategy and question whether childcare services in European countries *in their current state* are up to the task of producing the anticipated benefits. The argument I develop is fairly simple: in order to be successful, childcare services should be within the reach of children from disadvantaged families who are expected to benefit disproportionally, both in terms of child development and maternal employment. I argue that if that is not the case, then the child-centred investment strategy, in its current form, is bound to fail. Using recent comparative data for the EU27, I aim to shed light on this issue and to explore some tentative explanations which may ultimately provide valuable lessons for European policymakers.

In the following section, I discuss the basics of the child-centred investment strategy, further develop the main argument and articulate my research questions. This is followed by a section on the data and methods used, and the analyses proper. I end this article with a discussion of the implications of my results for the future of child-centred investment in European countries.

5.2 CHILD-CENTRED INVESTMENT: BASICS AND PITFALLS

The development of formal childcare services constitutes an essential dimension of the child-centred investment strategy. Such services express the goals of the social investment perspective in two ways: they invest in the human capital of mothers by helping them engage (or remain) in paid work; and they invest in the human capital of children

by providing them with quality educational stimulation at an early age. Neither of these elements is new, as the reconciliation of paid work and family life (and gender equality) was the main rationale for Scandinavian countries introducing a service-oriented agenda from the 1970s onwards (Ferrarini 2006), and investment in human capital has since long been recognised as the predominant mechanism for raising productivity (e.g. Becker 1964). Novel to a greater extent in this context, and resonating with the more 'traditional' goals of social protection, is the explicit commitment to social inclusion and the firm belief that childcare will prove to be the most efficient policy tool to mitigate social inequalities early on in life and to combat child poverty (Esping-Andersen et al. 2002).

The post-industrial labour market is characterised by upward skill requirements and a declining share of routinised labour of the kind that was associated with the industrial era, i.e. traditional working-class jobs (Oesch and Menés 2011). These trends are however likely to exacerbate the gap between those who can and those who cannot or are not able to acquire the skills needed in a 'knowledge economy'. Thus, a failure to increase the resilience of future workers by enhancing their human capital (and their labour market prospects) will require increased levels of public resources to be devoted to unemployment and social assistance benefits. For this reason, the social investment approach is particularly targeted at investment in children, since early developments in cognitive capacities are critical to developing a capacity to learn. Heckman (2006), amongst others, argues that the economic return from early intervention is much higher than the return from later intervention, e.g. public job training programmes. Investing in young children by means of quality childcare will pay large dividends later on in terms of tax revenues and forgone social spending, concomitantly contributing to sound public budgets.

The whole idea of childcare as a device for furthering human capital is based on a large body of research stemming from neuroscience and developmental psychology which established that human capital accumulation is especially important in the first years of life (Shonkoff and Phillips 2000). Moreover, economic and sociological research

established strong correlations between early educational stimulation on the one hand and educational achievement and longer-term outcomes in terms of labour market attainment and earning capacity on the other (Lowenstein 2011; Ruhm and Waldfogel 2012). Yet these benefits are conditional on the quality of the childcare services: low quality services may be harmful and yield detrimental outcomes in terms of child development. Important aspects of quality are the staff-child ratio, the quality of staff-child interactions, staff qualifications, group size, the curriculum and the integration of care and educational elements (for further reading on the issue of quality, see OECD 2012b; Penn 2011).

The use of high quality childcare services should be especially beneficial for children living in disadvantaged families (Esping-Andersen et al. 2002). It is well established that child poverty has very adverse long-term effects. Growing up in poverty is associated with worse health outcomes and lower levels of psychological well-being, impaired cognitive and emotional development, inadequate schooling and an increased chance of early dropout; all of which lead in the longer term to lower earning capacities, fewer labour market opportunities and a higher risk of incarceration. In short, children growing up in poverty face inferior life chances and low levels of social mobility (Duncan et al. 1998; Hackman, Farah and Meaney 2010; Vleminckx and Smeeding 2001). Even worse, given the inheritance of social inequality, children growing up in poverty have a high chance of becoming poor parents themselves. Child poverty is clearly anathema to the ideal of social investment which explains why the benefits of high-quality childcare for disadvantaged children are emphasized in the child-centred investment strategy.

Childcare is expected to mitigate early inequalities mainly through two channels. First, allowing mothers from disadvantaged families (often, if not always, having weak labour market profiles) to engage in paid employment not only yields benefits in terms of human capital (see above) but also raises family income, potentially pushing the family above the poverty threshold. It is indeed an established fact that maternal employment is a bulwark against child poverty (Chen and Corak 2008; Gornick and Jäntti 2012). Secondly, the disparity, in terms

of school readiness, between children growing up in low income families and those in high income families, is already substantial by the time they start school. This is largely so because the former grow up in an environment that is less conducive to learning, having parents who are less able to facilitate their children's school readiness than their higher-income and higher-skilled counterparts (Augustine, Cavanagh and Crosnoe 2009; Ermisch 2008; Waldfogel and Washbrook 2011). Obviously, other factors that are interrelated with poverty (such as ill health, bad housing, disadvantaged neighbourhoods and impoverished social networks) interfere with and contribute to this early disparity in school readiness (Brooks-Gunn 2003). In short, because these children start off from a position of disadvantage, they have the most to gain from high-quality childcare (Magnuson, Ruhm and Waldfogel 2007). Bestowing upon these children a stimulating learning environment offsets (at least partly) the unequal abilities of parents to improve their children's development, language competence and school readiness, and hence narrows the achievement gap (Barnett 1995; Currie 2001). This goes beyond short-term but transient gains in cognitive abilities (such as gains in IQ or test scores), and manifests itself in terms of social skills, motivation and achievement which lead children to be better prepared for learning (Heckman 2006). And because learning leads to further learning, the effects of equalising initial endowments are long-lasting and lead to improved chances for school success and social mobility (Brooks-Gunn 2003; Magnuson, Ruhm and Waldfogel 2007; Phillips and Lowenstein 2011). These effects have been found in the US as well as in Europe for different types of services (Currie 2001; Havnes and Mogstad 2011b; Sylva et al. 2004; see also the overview in UNICEF 2008). Simplifying an enormous body of literature, the overall conclusion is that formal childcare services, if they are of high quality, promote school readiness.

To summarize, providing high-quality childcare as part and parcel of a child-centred investment strategy is expected to enhance the human capital of mothers and children alike, and should in particular yield benefits for children from disadvantaged backgrounds and mitigate

social inequalities by tackling their root causes. There are, however, several reasons why such a child-centred investment strategy might fail.

First, notwithstanding the fact that positive effects on school readiness are increasingly, albeit inconsistently, observed in relation to 'regular' care services in European countries (Vandenbroeck, Roets and Roose 2012), the assumptions regarding the benefits for disadvantaged children are almost entirely based on experimental evidence drawn from highly specific and intensive US-based 'model programmes' (in particular the Carolina Abecadarian Project; the Chicago Child-Parent Center Program and the HighScope Perry Preschool Programme). These model programmes do not reflect the heterogeneity in services found in European countries and it is not clear whether these findings are readily transferable to any given context or scale, for example to childcare provided by child minders, which is a common type of non-parental care in several European countries (Baker 2011; Morrissey and Warner 2007). Moreover, two of these programmes (the Child-Parent Center Program and Perry Preschool) concern preschool children, while the greatest progress in terms of social and cognitive development is expected from toddlers (Heckman 2006).

Secondly, and related to the first point, quality is primordial but there is great variety in the quality of care services among and within countries. Regular care services for under threes usually focus on care and safety rather than on education, and staff often have low levels of training (the Nordic countries are exceptions here, see the discussion below). It is not clear how a stimulating environment, of the required quality, can be achieved in such context. Thirdly, childcare services do not operate in isolation and need to be developed in conjunction with parental leave, education systems and broader welfare programmes. There is evidence of harmful effects of first-year non-parental care in terms of cognitive and emotional well-being (Belsky 2001; Han, Waldfogel and Brooks-Gunn 2001; NICHD ECCRN 2003), highlighting the importance of parental leave systems allowing (at least one of the) parents to look after the children themselves during the critical early stages of life. European leave regulations differ greatly across countries in terms of duration and remuneration, and do not

always match the availability of childcare services or provide effective incentives for parents to take up leave (for an overview, see Moss 2013). Adding to that, previous research has demonstrated that the use made of leave is socially stratified which may reinforce prevailing inequalities (see chapter 2). A similar argument holds for the transition from childcare to compulsory schooling. School systems in many European countries are known to reproduce or even reinforce existing inequalities which may very well offset much of the benefit gained (Schütz, Ursprung and Wößmann 2008). Indeed, US research has shown that this is most likely to happen in schools of lower quality (Currie and Thomas 2000). And of course, because the quality of parental care also differs greatly between socio-economic groups, the existence or absence of broader child support arrangements such as home intervention programmes (focusing on changing parents' behaviour) presumably plays a role in the success or failure of childcare services too (Ruhm 2011; Waldfogel 2002). In sum, a successful child-centred investment strategy clearly cannot limit itself to childcare services alone. Finally, although correlations between the use and availability of childcare and maternal employment have been found time and again, some studies have shown that the creation of additional childcare places mainly acts to crowd out informal arrangements and in particular benefits mothers who are already employed (e.g. Havnes and Mogstad 2011b). Even the causal effect of childcare on maternal employment is thus not to be assumed *a priori*.

One argument, however, precedes these issues of quality, employment and generalizability. In order to be a beneficial strategy for disadvantaged families, childcare services need to be within the reach of these families. Recent research casts some doubt as to whether this is actually the case in European societies (see chapters 2 and 3; Ghysels and Van Lancker 2011; OECD 2011b). If these doubts are well-founded, childcare may not only fail to mitigate social inequalities but may even exacerbate them and raise new issues of social inequality between the haves and the have-nots, because the better-off children are able to enhance their existing advantage through the benefits of

childcare, while the children who would benefit the most are excluded. This would actually end up being the reverse of what is aimed for.

Basically, there are two pathways to ensure the inclusion of disadvantaged children: 1) Extending childcare coverage to all children, irrespective of family background and parents' labour market attainment (i.e. a strategy of *universalising* childcare); or 2) if childcare coverage is incomplete, giving priority to disadvantaged children to participate (i.e. a strategy of *targeting* childcare). According to Esping-Andersen (2005), the universal strategy is preferable from a social investment point-of-view because it kills two birds with one stone: it gives access to disadvantaged children whilst allowing mothers to engage in or remain in paid work. In the empirical analysis, I investigate the social distribution of childcare use in the EU27. This exercise allows for an assessment of whether countries have succeeded in universalising and equalising access for all social groups or, if that is not the case, whether priority is given to disadvantaged children.

5.3 DATA, DEFINITIONS AND METHODS

Data are drawn from the European Union Survey on Income and Living Conditions (EU-SILC), wave 2009. The EU-SILC is the main source for cross-national research on income and living conditions in the European Union as well as for monitoring progress towards the Barcelona childcare targets. Although sometimes criticised (e.g. by Keck and Saraceno 2011), the SILC data is currently the only data source allowing calculation of childcare usage among young children in a 'regular week' for all EU member states. In this analysis, I distinguish between two types of care. First, *formal care services* include care centres, nursery schools, professional child minders and family daycare providers. Second, *informal care* relates to care given by grandparents, relatives and friends. It should be noted that formal care includes both public and private services. The inclusion of private childcare is a crucial issue as private-market services, particularly if they are not subsidised, may result in hidden inequalities in quality as well as access (I return to

this issue in the discussion). The empirical analysis is limited to children below the age of three. Although non-parental care should ideally start around the age of one (see the discussion above), in several European countries children are enrolled much earlier. Furthermore, using this age bracket is consistent with the European approach as set down in the Barcelona targets and allows for comparison of homogenous groups, something that is not possible for children over the age of three as the role of educational systems then becomes very diverse across European countries making a comparison of service use much more complex. A drawback with this approach is that it does not take into account the take-up of leave schemes which, without doubt, influence childcare use levels negatively, especially for the very youngest children. I return to this issue when discussing the results in section 5.5 below.

In this article, I present a full time equivalent (FTE) measure of care use in order to take into account differences in the intensity of care use (i.e. hours of attendance per week). It is quite obvious that low-intensity use (say for one or two days a week, or for only a few hours a day, which is, for instance, common in the Netherlands, e.g. Plantenga and Remery (2009)) is not sufficient to allow for maternal employment and improve school readiness. Consequently, low-intensity childcare use does not adhere to the social investment ideal and simply relying on average use might obscure this important dimension. Following Meagher and Szebehely (2012), Rauch (2007) and the approach used in the OECD Family Database, FTE care use data represents the proportion of children who would be receiving child care if all existing care use was full-time (30 hours per week or more) FTE[29]. This gives us better insight into the genuine contribution of a particular country's childcare system to the social investment ideal.

To gauge the social stratification of care use, families with young children (defined as families with at least one child below the age of

[29] The calculation is as follows: FTE = proportion of children in formal childcare * average number of hours per week (as % of 30 hours per week). See OECD Family database, *PF3.2: Enrolment in childcare and pre-schools* (http://www.oecd.org/els/social/family/database).

six[30]) are divided into five income groups[31] (quintiles) for each country and FTE formal care use of children living in low-income and high-income households is compared. To report the outcomes properly, I present for each country an inequality ratio (IR), i.e. the average FTE care use among children living in the highest income family (fifth quintile) divided by the average care use among children living in a low income family (first quintile). An inequality ratio (IR) of 2 thus means that children from high-income families are enrolled in FTE childcare twice as much as their counterparts from low-income families, while an IR of 1 represents an equal distribution of care use.

The success of both of the strategies discussed above (universal coverage for all social groups and priority access for disadvantaged children) as child-centred investment strategies is investigated in the subsequent section. Average childcare use across the EU27 is examined first, followed by an exploration of its social distribution. The distributional outcomes as a function of labour market attainment and informal care use are also discussed.

5.4 Results: The social distribution of childcare use in Europe

5.4.1 Average care use

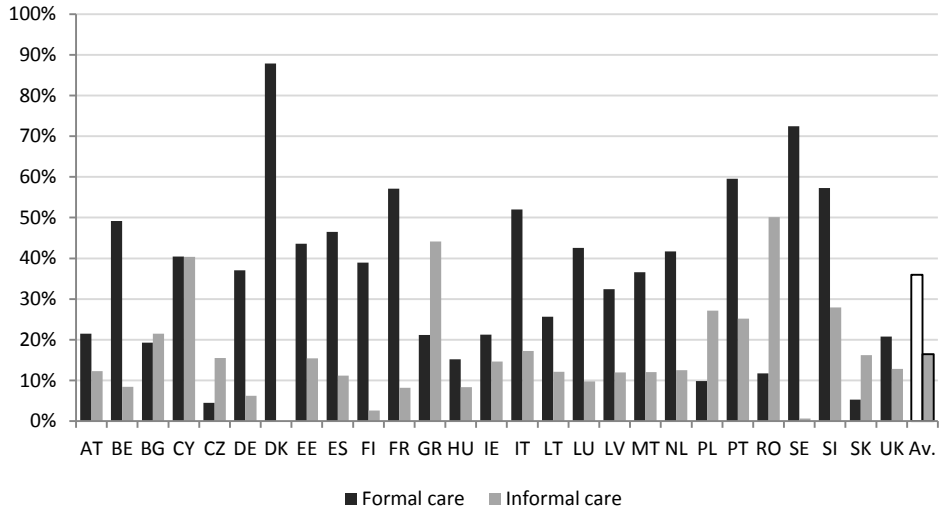
Figure 5-1 shows the average FTE measure of formal and informal childcare use for all children below the age of three in the EU27. The

30 Because we want to compare children who are disadvantaged relative to other children, it would not make sense to include all households (including childless families) to calculate income groups.

31 To compare households with a different number of members and different needs, household income is standardized using the so-called modified OECD-scale. The outcomes are somewhat sensitive to the use of this equivalence scale; other analyses (not shown) using non-standardized household income however do not alter the overall interpretations of the results. In Hungary, Luxemburg and Portugal, however, the IR increases with more than 2 points while the IR decreases with more than 2 points in Poland and Ireland.

disparity in formal care use between countries is enormous, ranging from more than 70 per cent of FTE in Sweden and Denmark to barely 5 per cent in the Czech Republic and the Slovak Republic. France, and perhaps more surprisingly Italy, Slovenia and Portugal are also high-coverage countries with FTE use exceeding 50 per cent. A group of countries with above-average use consists of Belgium, Spain, Estonia, Luxemburg, The Netherlands, Cyprus, Finland, Germany and Malta, while Latvia, Lithuania Austria, Ireland, Greece, the United Kingdom and the former socialist economies Bulgaria, Hungary, Romania and Poland are underachievers with figures ranging from 10 per cent to 30 per cent.

Figure 5-1 FTE care use for all children below the age of three, EU27



Source: Own calculations using EU-SILC 2009 data. Countries are ranked by average FTE formal care use. Average is unweighted.

Regarding FTE informal care use (i.e. care given by grandparents, friends or relatives), one can see this is the major form of care for young children in some of the low-coverage countries while informal care is almost non-existent in Sweden and Denmark. Indeed, the SILC data indicate a modest trade-off between informal and formal care use ($r = -0.38$): the higher formal care use, the lower the reliance on informal care in a regular week, and *vice versa*.

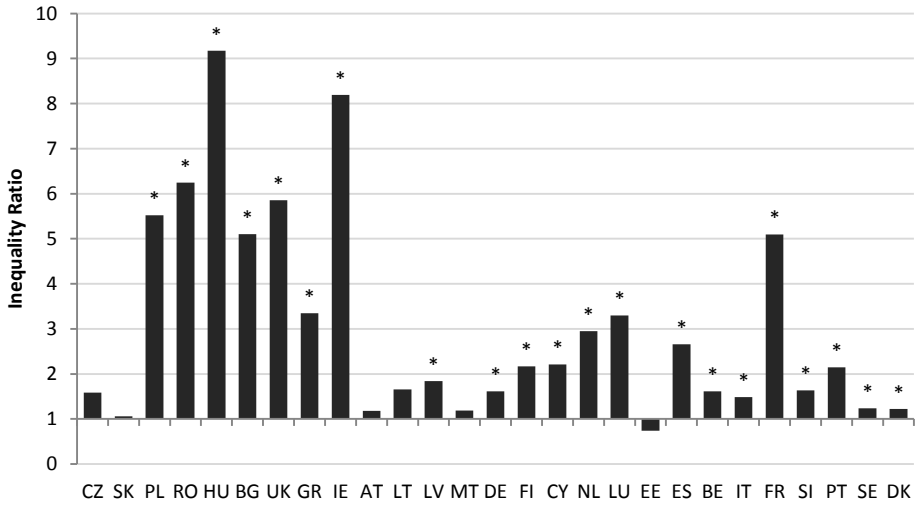
Although childcare use in European countries does not translate into consistent clusters of countries (and certainly does not follow the traditional welfare regimes), two general observations can be made: (1) the Central and Eastern European member states, which, during the socialist era, were characterized by high levels of care use have fallen back to the bottom of the league table, confirming earlier findings on trends in family policy in these countries (see Plantenga and Remery 2009; Saxonberg and Sirovátka 2006; Szelewa and Polakowski 2008a). Slovenia, however, is a startling exception within this group, with childcare use at similar levels to high-coverage countries such as France and Portugal; (2) even in the high-coverage countries, including Sweden, FTE formal care use is not universal: a significant proportion of young children are not catered for in formal childcare services.

Obviously, in evaluating countries' achievement in relation to universal coverage, account should be taken of existing parental leave entitlements. In order to neutralize the effect of parental leave uptake, I also looked at formal care use among one and two-year olds (results not shown). Although average usage figures are higher overall for this age group, Denmark remains the only country approaching universal use (with 90 per cent FTE formal care use).

5.4.2 The social stratification of care use

Let us now turn to the social distribution of care use. Figure 5-2 shows inequality ratios for FTE formal care use across the EU27. The data demonstrate that care use is socially stratified in the large majority of countries. There are only six countries (Czech Republic, Slovak Republic, Austria, Lithuania, Malta and Estonia) in which the difference in childcare use between children from low-income and high-income families is not significant, but none of these countries satisfy the condition of universal use. No single European country reports significant higher levels of care use for children from low income families compared to their higher income counterparts, suggesting that childcare services are not targeted towards disadvantaged children in any of these countries.

Figure 5-2 Inequality in FTE formal care use, children below the age of three, EU27



Source: Own calculations using EU-SILC 2009 data. Countries are ranked by average FTE formal care use. *: Significance level for the difference between low and high income families: $p < 0.05$.

The magnitude of the inequality is particularly striking in countries characterized by low levels of overall FTE care use, such as Poland, Romania, Hungary, Bulgaria, the United Kingdom and Ireland, while usage is more equal in countries reporting higher levels of FTE care use, such as Belgium, Italy, Slovenia and Portugal (France is an exception here). Indeed, the inequality ratio (IR) decreases as average usage goes up ($r = -0.42$). However, care is needed in interpreting these figures. Although inequality ratios between 1.5 and 2 might seem reasonable compared to the extreme inequalities in the left-hand side of the graph (from an IR of 5.5 in Poland an IR of 8 in Ireland and an IR of over 9 in Hungary), in reality they translate into a wide gap when average use is at a high level. In the case of Belgium (IR: 1.6), this amounts to 61 per cent of children from high-income families enrolled in formal care compared to only 38 per cent of children living in low-income households. In France, the situation is even more dramatic: an average FTE care use of 57 per cent (see Figure 5-1 above) conceals usage rates of 15 per cent for low-income children compared to 77 per cent for

high-income children. Such inequalities increase the gap between the 'haves' and the 'have-nots' (Schütz, Ursprung and Wößmann 2008), and are detrimental to the whole idea of social investment. The only two countries that more or less ensure equal participation in formal childcare at high levels are Denmark and Sweden with IRs of 1.2. However, here too the inequalities are not negligible (92 per cent *vs* 75 per cent in Denmark and 75 per cent *vs* 60 per cent in Sweden).

5.4.3 The role of employment and informal care

The above findings should be interpreted in conjunction with labour market outcomes and the availability of other care arrangements. It is well documented that the increase in female labour market participation has been a socially stratified process, with large differences in employment between low-skilled and high-skilled women (Cantillon et al. 2001; Gesthuizen, Solga and Künster 2011). To the extent that employed parents rely on childcare services and the employment of parents also explains their position in the income distribution, the social stratification of care use could simply be a reflection of unequal labour market patterns (Ghysels and Van Lancker 2011). If this were true, the inequality in FTE childcare use should disappear when the sample is limited to children with employed mothers[32]. This is investigated in Figure 5-3, and the results demonstrate that, for the majority of countries, the difference in care use is no longer significant. For these countries, labour market attainment does indeed explain the stratification of care use[33]. This calls for a balanced interpretation. The relationship between childcare use and maternal employment is presumably reciprocal: availability of childcare services gives mothers of young children a better option to engage in paid employment which in

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32 Mothers are regarded to be employed if they declare themselves to be (full-time or part-time) employed at the moment of interview, which matches the time frame of the childcare questions.

33 One has to be careful still. The inequality is probably not explained away by employment in Portugal. Due to a small number of cases (n=94), the IR of 2.2 is near-significant ($p = 0.052$).

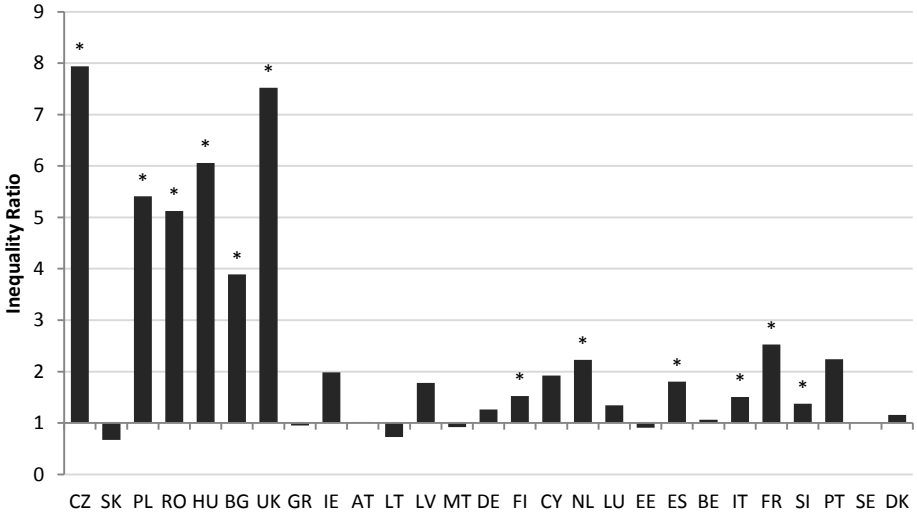
turn will induce a higher demand for childcare places (Steiber and Haas 2012). If one assumes that employment and childcare use move together, advocates of activation will not necessarily be worried by the unequal outcomes in childcare use: childcare use will equalise when employment patterns converge. Advocates of social investment, however, cannot be satisfied with such a state of affairs: a child-centred investment strategy is explicitly committed to furthering the human capital of disadvantaged children, which surely includes children whose mother is not (yet) employed.

Furthermore, bringing employment into the equation does not explain the social stratification in care use for all countries in the same way. In some of the low-coverage countries huge inequalities are maintained (or even exacerbated, cf. Czech Republic and the United Kingdom), while in others the inequality in care use is mitigated but not fully explained by labour market participation. In Italy, for instance, the inequality ratio (IR) is 1.5 which translates to usage rates of 45 per cent of children in low-income families compared to 67 per cent of children in high-income families. Similarly, for France this amounts to 34 per cent compared to 86 per cent; and for Slovenia to 50 per cent compared to 68 per cent. In these countries, childcare participation is constrained for children from low-income families *even if their mothers are employed*.

From an activation perspective, this does not have to be a problem if these families are able to fulfil their care demands through informal channels. Indeed, it is often assumed that more disadvantaged families, including low income families, families where the mother has a lower level of education, minorities and immigrant parents, are more likely to depend on informal arrangements as their primary source of childcare (Debacker 2008; Henley and Lyons 2000). Again, however, social investment advocates cannot be satisfied with informal care for disadvantaged children because these arrangements are often not conducive to promoting school readiness (see above). Figure shows the inequality ratio of informal care use in the EU27 for all mothers (dark bars) and for employed mothers (grey bars). In several countries, no significant difference between income levels can be discerned; but when there is a difference, the use of informal care is biased *against* low-

income families. This pattern is not confined to specific countries but emerges across low, middle and high-coverage countries. The results do not support the assumption that low-income families rely more on kith and kin while high-income families fulfil their care demands through formal childcare services: low-income families are less likely to use *both* formal and informal care.

Figure 5-3 Inequality in FTE formal care use, children below the age of three with employed mothers, EU27

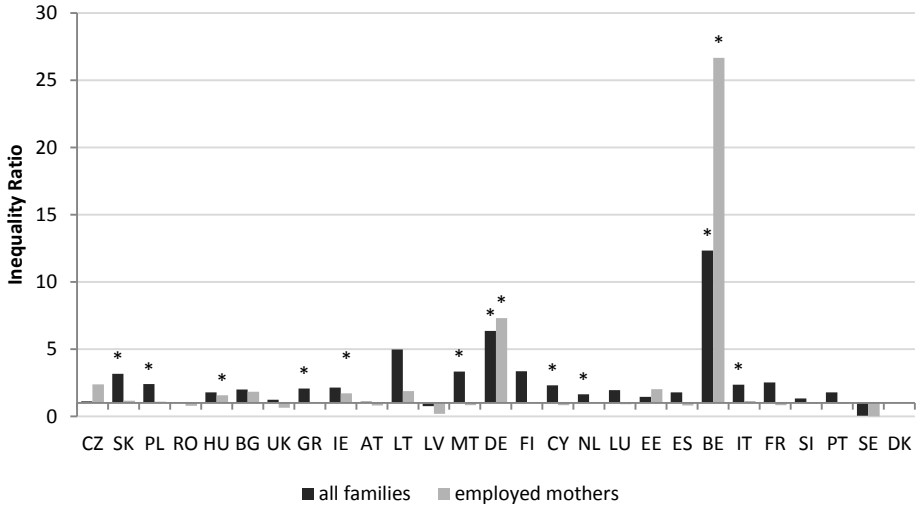


Source: Own calculations using EU-SILC 2009 data. Countries are ranked by average FTE formal care use. * significance level, $p < 0.05$.

It could however be that the expected trade-off between informal and formal care explains the inequality in care use only among working mothers. The grey bars in Figure 5-4 show that, if all mothers are considered, in almost all countries differences between income levels disappear, but inequalities still prevail in some countries (Germany and in particular Belgium are cases in point). An even more important finding, evident from Figure 5-4, is that there is not a single country in which a significantly higher proportion of children from low-income families are cared for by grandparents, relatives or friends than are children from high-income families. In other words, the existing

inequality in FTE formal childcare use amongst working mothers is not explained by a trade-off with informal arrangements.

Figure 5-4 Inequality in FTE informal care use, children below the age of three, EU27



Source: Own calculations using EU-SILC 2009 data. *: significance level, $p < 0.05$.

5.5 Discussion: Lessons learned and the way forward

These empirical results are sufficiently clear cut to warrant attention from policy makers concerned with implementing a successful child-centred investment strategy. It is crystal clear from the above analysis of current childcare outcomes that the majority of EU member states still have a long way to go in universalizing and equalizing formal care use for children below the age of three. Although one cannot directly infer problems of rationing from the usage figures that are deployed in this article, there is ample evidence of shortages in childcare availability in almost all European countries (except for the Nordic countries), and in particular the Central and Eastern European countries (see the overview in Plantenga and Remery 2009). This finding is supported by research on the effects of childcare on female labour supply: while early research

focused on the role of childcare costs (e.g. Blau and Robins 1988), currently the consensus seems to be that availability is key for maternal employment, and this is particularly true in the European context where childcare in almost all countries is subsidized one way or the other (Kreyenfeld and Hank 2000; Viitanen 2005; Wrohlich 2011). Indeed, detailed country studies show that almost all European countries have either implemented an income-related tariff system for their publicly-provided or subsidized childcare services or provide childcare subsidies targeted towards low-income families when childcare has to be purchased in the private market (an exception here is Ireland, where *both* availability and affordability are problematic) (European Parliament 2007; UNICEF 2008). Obviously, childcare costs play an important role in families' care decisions, and this is particularly true of low-income households for whom childcare costs are proportionately higher. Yet, lowering prices cannot increase childcare participation if parents are not able to access a free childcare place in the first instance (Farfan-Portet, Lorant and Petrella 2011). Consequently, while continuously monitoring affordability for low income families, European countries need to substantially increase the number of available childcare places. That is the first lesson that can be learned.

Notwithstanding its importance, increasing childcare supply is not a sufficient condition for equalizing formal care use. Consider the example of the three Nordic countries, where childcare places are guaranteed as a social right and no problem of rationing occurs. While Denmark and Sweden do indeed display high levels of care use, and distribute it equally among social groups, Finland reports much lower levels of childcare use with a bias against low-income families. Finland is similar to Sweden and Denmark in that a place in public childcare is a social right and is heavily subsidized, but differs from them in that it introduced a cash-for-care scheme in 1985[34] as an alternative to

[34] Sweden had a similar system installed in 1994 by the then centre-right government only to be abolished in 1996 by the subsequent centre-left government. It was reinstalled again in 2008 by a centre-right government. Municipalities are however free whether to offer it to its citizens. Although it

childcare services (Ellingsæter 2012). Underpinned by a 'freedom of choice' rhetoric, a cash benefit is paid to families with a child under the age of three who is not enrolled in childcare; *de facto* extending the period of parental leave until a child's third birthday (Sipila, Repo and Rissanen 2010). The popularity of the scheme explains the low levels of formal care use compared to Sweden and Denmark (in 2007, 52 per cent of Finnish children under the age of three were cared for at home, (Repo 2010)). Without going into too much detail here, it is actually an incentive for mothers (who are still responsible for the bulk of caregiving work) not to use formal childcare, especially for those with low earning-potential who have limited employment opportunities (*infra*; Meagher and Szebehely (2012)). The Finnish cash-for-care scheme thus contributes to the inequality in outcomes reported in Figure 2 above. A similar policy ambiguity can be found in other countries that are characterized by high inequality in care use across income groups, such as France, where family policies include both the provision of childcare to encourage maternal employment and cash benefits to encourage mothers to take care of the children themselves (Morel 2007). Here, too, the incentive structure encourages low-paid mothers to stay at home. Unlike the availability of parental leave in the critical first year of a child's life, long periods of home-care leave go against the child-centred investment prescription of extending childcare coverage to all children on the one hand, and are detrimental for maternal employment opportunities, in particular for mothers with lesser career prospects, on the other (Gornick and Hegewisch 2010). Thus, the second lesson that can be learned is that a child-centred investment strategy is in dire need of a *consistent* set of policies; this highlights the importance of including a broad set of policies into the analytical framework.

This lesson connects to labour market policy: a consistent child-centred investment strategy cannot but include the implementation of consistent employment policies. The results showed that inequality in

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is too premature to sort any significant effect, it cannot be but interpreted as a divergence from a consistent investment approach.

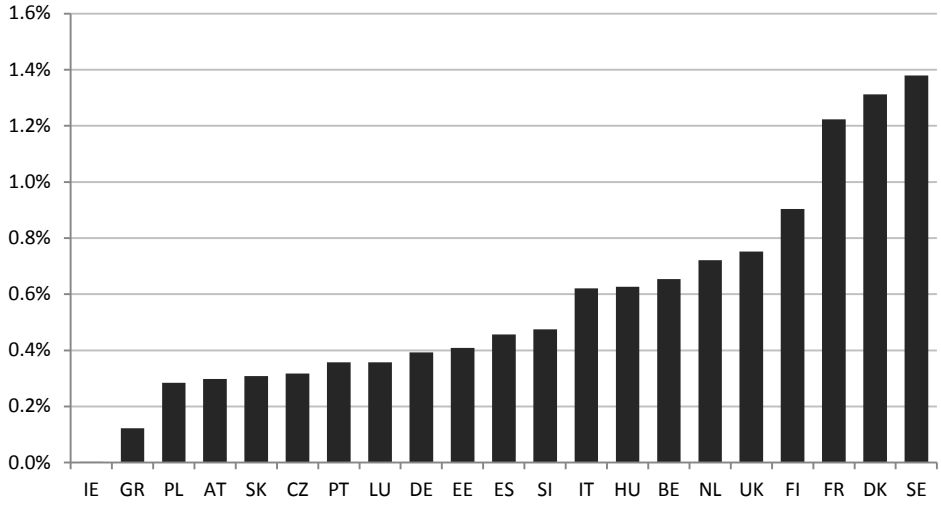
care use disappeared in the majority of countries when the analysis was limited to children whose mother is employed. Again, the Nordic countries serve as a useful example here. Sweden and Denmark pursued a consistent investment-oriented labour market policy (with strong emphasis on activation policies and training programmes), influenced by the notion that gender equality can only be achieved by increasing women's employment opportunities and men's opportunities to take care of children (the so-called 'dual earner/dual carer' model, Korpi 2000). This entailed a focus on the provision of generous parental leave entitlements and public sector employment, and the creation of labour market conditions conducive for low-skilled women (Korpi, Ferrarini and Englund 2013). In most other countries (including Finland), however, employment opportunities for women are more limited, and this is particularly true for low-skilled women. Few countries have followed a consistent investment approach towards employment (Bonoli 2012; Vandenbroucke and Vleminckx 2011). This is the third lesson: ensuring that childcare services are able to mitigate social inequalities entails a focus on increasing maternal employment across all social groups. However, quality is important here, as it is with childcare. When mothers experience job instability with, for instance, unpredictable working hours and/or fluctuating work schedules, which in turn induces parental stress and leads to volatility in non-parental care arrangements, employment may negatively affect the socioeconomic development of children (Johnson, Kalil and Dunifon 2012). Such jobs are typical of the kind of employment engaged in by disadvantaged families.

This brings me to the final lesson. Even when governments have implemented a consistent set of policies and the conditions for a successful child-centred investment strategy are fulfilled, equal use of childcare services across social groups will not be guaranteed (cf. Denmark which is approaching but not achieving universal coverage). This may be due to the specificities of policy implementation (e.g. how is the service exactly delivered?; are there unforeseen barriers for enrolment?), calling for more in-depth studies of policy design (one example, covering Sweden and Belgium, is Van Lancker and Ghysels

(2012)). Second, irrespective of implementation issues, childcare use not only depends on structural opportunities and constraints, but also on social and cultural values in relation to motherhood and children's needs. Some parents will always be unable or unwilling to enroll their children in non-parental care services (Lewis, Campbell and Huerta 2008). Such families are in need of other policy options, and a smart child-centred investment approach should acknowledge that.

So, then, what is the way forward for European countries? Only in Denmark, and to a lesser extent in Sweden, do the outcomes more or less adhere to a successful child-centred investment strategy. In these countries, funding for childcare services is supply-sided, a childcare slot is a social right for each child over the age of one, out-of-pocket fees are related to disposable income, services have to meet strict quality requirements (e.g. they must conform to centrally-set educational curricula and staff-child ratios) and childcare staff are properly trained and adequately paid (OECD 2012b). It is quite clear from the results that the majority of countries have a very long way to go in order to come close to the Danish experience; achieving this would require governments to switch into higher gear and take a huge leap forward. To have an idea of the size of the effort needed, Figure 5-8 shows spending on childcare in percentage of GDP. Although it is only illustrative, using Denmark as a benchmark immediately demonstrates the budgetary effort faced by some countries. Doubling (Belgium, The Netherlands, the United Kingdom), tripling (Germany, Spain, Slovenia, Estonia,) or even quadrupling (Poland, Austria, Czech Republic, Slovak Republic) the public investment in childcare will certainly require political commitment but may be very hard to achieve for some of the underachievers, in particular the Central and Eastern European member states; and this is particularly true in a social and economic context of austerity in which short-term fiscal consolidations rather than achieving longer-term investment goals are the prime policy goals (e.g. Hemerijck 2012b).

Figure 5-5 Average net government spending on childcare, percentage of GDP, 2007



Source: Own calculations using the OECD SOCX database. *Note:* Childcare includes spending on day-care services, pre-primary (ISCED0) education and, where applicable, tax credits for childcare.

It is not only the budgetary effort that is almost inconceivable; one should also be aware of path dependency in expanding childcare. Indeed, publicly providing and/or subsidizing childcare services may, in particular, not be feasible in those countries where childcare services are mainly provided through the market (i.e. in Ireland and the United Kingdom, but also in the Netherlands, Poland, Portugal, Austria and the Czech Republic, according to the *OECD Family Database*). Although market-driven childcare provision does not necessarily exclude government involvement, as policymakers can stimulate demand in various ways, e.g. through demand-side subsidies such as childcare vouchers and tax rebates, from a social investment point-of-view this option might not be viable because private provision is associated with lower quality, higher private costs and problems of rationing, especially in disadvantaged neighbourhoods. For instance, the Netherlands has seen a shift from supply-side to demand-side subsidies following its 2005 Child Care Act, which led to a proliferation of for-profit facilities at the expense of not-for-profit facilities. These for-profit facilities tend to be more concentrated in neighbourhoods with higher purchasing

power, at the detriment of poorer areas (Noailly and Visser 2009). Disregarding the important issue of service delivery, whatever choices governments make (or have made in the past) and irrespective of who bears the main burden of the cost, the total cost of universalizing high-quality childcare services for all social groups will hover around the same order of magnitude (for a similar argument, see Esping-Andersen 2005).

5.6 Conclusion

In this chapter, I have put forward the argument that childcare services should be within reach of disadvantaged children in order to be effective in increasing maternal employment rates, increasing children's human capital and mitigating social inequalities. The results demonstrate, however, that in almost all EU member states childcare coverage is not universal and is socially stratified. Children from low-income families are enrolled in formal childcare to a much lesser extent than children from high-income families. The only country approaching the child-centred investment ideal of universalizing and equalizing childcare coverage is Denmark. In discussing the results, I pointed out some lessons for governments that wish to pursue a child-centred investment strategy: they should increase the availability of high-quality childcare places while simultaneously increasing employment opportunities for all social groups, and these initiatives should be embedded in a broader set of consistent investment policies. For most EU member states, this will require a huge budgetary effort which may not be feasible in the short or even in the long term. Further research should concentrate on identifying strategies through which governments can ensure access to qualitative childcare for children from disadvantaged backgrounds, given budgetary constraints and path-dependent institutional configurations.

The main lesson to draw from this analysis is that the children who would benefit most from being integrated into high quality childcare are the ones currently most likely to be excluded. This is likely to exacerbate

rather than mitigate social inequalities in early life. Hence, the unavoidable conclusion is that existing child-centred investment strategies are bound to fail.

CHAPTER 6

EXPLAINING PATTERNS OF INEQUALITY IN CHILDCARE USE ACROSS 31 DEVELOPED COUNTRIES*

6.1 INTRODUCTION

The provision of early childhood education and care services (hereafter: childcare) is high on the policy agenda. It is increasingly seen as a most promising instrument for mitigating social inequalities and is promoted at the policy level in just about all developed countries. Childcare has been on the agenda of the European Union since the mid-1990s and the adoption of the 1992 Childcare Recommendation. At the other side of the Atlantic, Barack Obama identified the expansion of Head Start and Early Head Start as one of his priorities at the start of his presidency (Obama 2007).

The emphasis on childcare fits neatly into the social investment perspective, which is now the dominant approach to social policymaking in Europe and elsewhere (Cantillon and Vandenbroucke 2014; Esping-Andersen et al. 2002; Morel, Palier and Palme 2012). In

* A more elaborate version of this chapter has been published as Van Lancker, Wim and Ghysels, Joris (2013) "Great expectations, but how to achieve them? Explaining patterns of inequality in childcare use across 31 developed countries", *CSB Working Paper*, 1305, Herman Deleeck Centre for Social Policy, Antwerp. Comments and suggestions by the participants in the ISA RC19 2012 Annual Conference, the 13th Annual ESPAnet Conference, and by Sarah Marchal and Stephen Windross are gratefully acknowledged.

this respect, childcare may be regarded as an integral part of 'productive social policy' in which the objective of social inclusion through employment is key (Chapter 1). The underlying idea is that investing in young children by means of high-quality childcare not only yields short and long-term benefits for the children themselves, but also for society as a whole.

The potential benefits of childcare (throughout this article we use formal childcare, childcare and childcare services as synonyms) are mainly realized through two channels. *First*, childcare is expected to increase maternal employment rates, which in turn leads to greater gender equality by distributing labour and care more equally between partners and by enabling women to earn a wage of their own. Moreover, (child) poverty is reduced because household income increases and families have more resources at their disposal (Stier, Lewin-Epstein and Braun 2001; Uunk, Kalmijn and Muffels 2005). *Second*, childcare is seen as beneficial for young children because it enhances human capital and leads to better learning outcomes and school readiness in the short run, and better social and labour market prospects in the longer run (Heckman 2006). Yet these benefits are conditional on the quality of the childcare services: low-quality services may be harmful and produce detrimental outcomes in terms of child development.

It is important to note that the expected returns of childcare are particularly large for disadvantaged families. *First*, it has been meticulously documented how increased female labour market participation has been a socially stratified process, with low-educated women participating to a much smaller extent than their higher-educated counterparts (Cantillon et al. 2001; Evertsson et al. 2009). Moreover, because of the process of educational homogamy, dual earnership has also been adopted in an uneven way in modern societies, exacerbating the labour market disadvantage and the welfare gap between low-skilled and high-skilled families. These families thus have the most to gain in terms of labour market participation. *Second*, children of disadvantaged families in particular are expected to benefit in terms of development because they start from a disadvantaged position and

consequently stand to gain the most (Magnuson, Ruhm and Waldfogel 2007). It is well established that child poverty has adverse long-term effects on the life chances of these children as well as on their opportunities to become productive adults (Duncan et al. 1998; Hackman, Farah and Meaney 2010). Bestowing upon children a stimulating learning environment may offset the unequal abilities of parents to stimulate their children's development, language competence and school readiness, and hence to narrow the development gap (Barnett 1995; Currie 2001). Because learning leads to further learning, the effects of equalizing initial endowments are long-lasting, leading to improved chances for school success and social mobility (Brooks-Gunn 2003; Magnuson, Ruhm and Waldfogel 2007; Phillips and Lowenstein 2011). To summarize, providing high-quality childcare is expected to enhance the human capital of mothers and children alike, and should in particular yield benefits for children from disadvantaged backgrounds.

If these great expectations are warranted[35], the implication is that in particular children from disadvantaged socio-economic backgrounds should be enrolled in high-quality childcare. After all, their mothers are often out of work, and they have the most to gain in terms of child development. If childcare coverage over socioeconomic groups is unequal and disadvantaged children have less access to childcare services, the opportunity and development gap between them and their better-off counterparts will likely widen rather than narrow (see Chapter 5). This would be the opposite of what governments want to achieve with the expansion of childcare services. In the previous chapters it was shown that inequality in access to and use of formal childcare services is the norm rather than the exception in European countries (Chapters 2, 3 and 5). Here, our aim is to study patterns of inequality in childcare use from a welfare state perspective. To date, attempts to explain inequality in childcare use have been rather idiosyncratic and have focused on specific countries or regions (Fuller and Xiaoyan 1996; Meagher and

[35] There is some room for doubt. For lack of space, we will not provide a review of the critical literature here, but refer the reader to Chapter 5; Melhuish 2004; and Vandenbroeck et al. 2012.

Szebehely 2012; Meyers et al. 2004; Spieß, Kreyenfeld and Wagner 2003; Van Lancker and Ghysels 2012), without much consideration for the broader processes and institutional characteristics that are fundamental to understanding the social context in which childcare services are provided. Because women are still responsible for the bulk of childrearing activities, even in the so-called egalitarian welfare states, the institutional and normative arrangements that structure women's employment and care patterns will be particularly relevant to our endeavor.

What explains the observed inequality in childcare coverage between social groups across countries? This fairly simple yet important question has to date attracted little if any scholarly attention. This lacuna in the literature is unfortunate, as a proper understanding of the mechanisms driving inequality in childcare service use is crucial for its success as a policy instrument to mitigate social inequalities in early life, to further child development and to foster maternal employment. Drawing on the comparative social policy literature, this article intends to explore the determinants of the observed inequality in childcare coverage for a broad set of countries. Given the lack of both prior theoretical understanding and comparative data (see below), this study is exploratory in nature.

The first section draws on the comparative social policy literature to infer hypotheses on the determinants of childcare inequality. The second describes the data and methodology applied. Subsequently, an overview is provided of childcare coverage and inequality across thirty-two countries. This is followed by a bivariate exploration of the processes underlying the inequality in childcare use, formalized in a simple regression exercise. We conclude with a brief discussion of the results and its caveats.

6.2 THE CONFIGURATION OF WELFARE STATES AND CHILDCARE INEQUALITY: THEORY & EXPECTATIONS

The main aim of this paper is to explore the determinants of inequality in childcare coverage between disadvantaged and advantaged children across welfare states. Hitherto, the field of comparative social policy research has been dominated by the welfare regime approach, which is basically an attempt to flesh out the *content* of welfare states based on the relationship between the market, the state and the family (see also Abrahamson 1999; Arts and Gelissen 2002; Esping-Andersen 1990; and Powell and Barrientos 2011for reviews and criticisms). Although the issue of services has been generally neglected in much of the comparative literature (Jensen 2008), the analytical framework has been effectively applied in understanding patterns of inequality in access to education (Allmendinger and Leibfried 2003; Triventi 2013) and health care services (Reibling 2010; Van Doorslaer, Masseria and Koolman 2006). Childcare inequality, too, may be expected to be determined by the institutional configuration of welfare states. Drawing on the comparative social policy literature, there are in fact three dimensions of social policy that are potentially related to inequality in childcare use.

6.2.1 Dimension 1: universalism

A key principle in the classification of welfare states, universalism is a complex notion that has been interpreted and applied in different ways (Anttonen 2002). Esping-Andersen (1990), for instance, discusses universalism in conjunction with social rights and citizenship, in particular the question of whether entitlements to benefit schemes promote equality of status or social stratification. Others have used it to describe a logic of redistribution, referring to the targeting and distribution of (cash) benefits (e.g. Korpi and Palme 1998). In research that tries to connect social services to welfare regimes, universalism is interpreted in terms of accessibility: for a service to be universal, it should be accessible to all in need of that particular service (Rauch

2007). Accessibility is determined by multiple aspects of service delivery, however, and a dysfunction in any of these aspect may induce inequality in its use. First and foremost, for a service to be accessible it must obviously be available. Indeed, there is a strong argument that equality in care use will not be achieved when childcare supply is rationed. For instance, there is some evidence that, in a situation of rationing, the availability of childcare will decline disproportionately in more disadvantaged and lower-income neighborhoods (Henley and Lyons 2000; Vandenbroeck et al. 2008). Moreover, childcare rationing has a discouraging effect on maternal labour supply (Del Boca and Vuri 2007; Wrohlich 2011). Given the abovementioned fact that the low-skilled mothers have far fewer labour market opportunities than their higher-skilled counterparts, inequality in childcare use stemming from rationing might result in a negative feedback loop, exacerbating inequalities in the labour market as well.

Related to this first aspect, and referring to universalism as connected to social rights (*supra*), is the matter of service guarantee (Rauch 2007). Currently, in Finland, Norway, Denmark, Estonia and Sweden, children have a legal right to formal childcare services. Hence, one might expect inequality to be smaller in these countries. Finally, availability also depends on the private costs, i.e. the out-of-pocket fee parents are required to pay for service use. Research has shown that the impact of childcare costs is greater for mothers with a lower earnings potential, such as the low skilled (Baum 2002).

6.2.2 Dimension 2: state-market mix

Several authors report an increasing tendency towards marketization of care services (Brennan et al. 2012; Lloyd and Penn 2012). This evolution is not confined to the liberal welfare regimes where market forces are traditionally seen as the major provider of welfare, but also manifests itself in the Nordic countries. Although the childcare landscape in most countries still reflects a 'mixed economy', where the public sector as well as the private and the voluntary sectors are engaged in providing childcare services, the phenomenon of marketization might increase

inequality in childcare coverage (OECD 2006). An increasing body of research demonstrates that private childcare provision is generally associated with lower quality, higher private costs and problems of rationing, especially in disadvantaged neighborhoods (OECD 2012b). Obviously, market-based provision does not exclude government involvement, which can range from licensing and regulation, to subsidizing of consumers or services, to direct provision (Plantenga and Remery 2009; White and Friendly 2012). In the UK and US, for example, a two-tier system is in place. Families are encouraged to satisfy their care requirements in the private market by means of demand-side subsidies such as tax credits or rebates and childcare vouchers. At the same time, in line with the logic of public welfare as a measure of last resort in the liberal welfare regime, services targeted at disadvantaged children, families and neighborhoods are directly funded and provided by the government (*Sure Start* in UK and *Head Start* in the US being among the most well-known examples). In countries such as Belgium, childcare services are set up by private not-for-profit providers, but these are almost completely publicly funded. A similar system exists in France and Portugal, where the majority of services are independently established but dependent on state funding. In Sweden, most services are provided by the municipalities, centrally regulated and publicly funded (chapter 3).

In conjunction with marketization, the level of government involvement most likely also determines childcare inequality outcomes. If government intervention is low and restricted to licensing, for instance, high-quality facilities will be expensive because they entail high production costs (higher staff wages and qualifications, lower staff-to-child ratio). Consequently, access is restricted to parents who can afford it (OECD 2006). This effect may be offset by a higher level of government intervention in the form of subsidies, so that high-quality care becomes affordable, or by directly providing high-quality services (Immervol and Barber 2005). Other researchers have warned, however, that demand-side subsidy programmes may lead to a higher take-up of lower-quality services rather than enabling parents to buy high-quality care in the market (Sosinsky 2012), if service provision is left to the

private sector and quality is not monitored adequately. All in all, considering that the capacity to pay determines access to care facilities and the quality of care received when government involvement is low, the balance between marketization and government involvement is expected to play a role in determining inequality in childcare coverage (Meagher and Szebehely 2012).

6.2.3 Dimension 3: defamilization

After the publication of his *Three Worlds of Welfare Capitalism* (1990), Esping-Andersen was widely criticized by feminist scholars for neglecting the work-care nexus in classifying welfare states; he was accused of 'gender blindness', as it were (Knijn and Ostner 2002; Lewis 1992). More specifically, critics have argued that welfare regime approach should be supplemented with the concept of defamilization, i.e. the degree to which women are able to uphold an acceptable standard of living independently of their families (Lister 1994).

Childcare services and parental leave schemes are generally seen as the most important defamilizing policy tools. Indeed, childcare services relieve women (at least to some extent) from (child) care duties, enabling them to take up paid work in the labour market (Gornick and Meyers 2005). As a matter of fact, childcare use and maternal labour market participation are highly correlated and the relationship between the two is presumably reciprocal: availability of childcare services enhances the options of mothers of young children to engage in paid employment, which will in turn induce greater demand for childcare services (Steiber and Haas 2012). Given the fact that labour market opportunities are not evenly distributed across educational levels, one may expect countries with high employment levels among low-skilled mothers, and thus low levels of employment inequality, also to report low levels of childcare inequality. It might also be the case that families who are unable to obtain formal childcare rely on informal care channels instead. Although the availability of informal care is generally on the decline (Ghysels and Van Vlasselaer 2008), it is often assumed that more disadvantaged families (including low-income families,

families with a low-educated mother, minorities, immigrant parents) are more likely to depend on informal arrangements (i.e. the extended family, grandparents, other relatives) as their primary source of childcare (Henley and Lyons 2000). Recent research finds that this might be due to a combination of personal preferences and the availability and affordability of nearby formal care arrangements (Debacker 2008). Thus we may expect the availability of informal care arrangements and childcare service to be inversely related. Parental leave, then, enables parents to interrupt employment in order to provide care for their children themselves while fostering parents' bond with the labour market by maintaining the contractual link between employer and employee (Hegewisch and Gornick 2011; Ray, Gornick and Schmitt 2010). Short periods of particularly well-paid leave have been shown to be beneficial to female employment rates: young women are encouraged to strengthen their labour market attachment before giving birth in the knowledge that they will suffer only minor income loss and will be able to safely return to their jobs afterwards, especially if the leave period is aligned with the availability of childcare services (De Henau, Meulders and O'Dorchai 2007).

However, in countries offering only limited public support for childcare services, long periods of leave act as a disincentive for female employment and provide support for the breadwinner model. This impacts in particular on women with low levels of education, because their lower earnings potential provides fewer financial incentives to return to work (assuming they were in work prior to childbirth), and they often have fewer resources to pay for formal childcare (Hegewisch and Gornick 2011). It has indeed been shown that women with lower earnings are more likely than high-earning women to make use of long care leaves (Morgan and Zippel 2003b). However, when long leaves are unpaid, mothers in less affluent families may not be able to afford to take them. A similar mechanism is at play in the case of so-called home care allowances or cash-for-care schemes. During the 1980s and 90s, countries such as Finland, France, Hungary and Norway introduced an allowance for parents to stay at home with their children as an alternative to formal childcare services, de facto extending the period of

parental leave up to three years. Such policies actually create an incentive for mothers not to use childcare, especially for those with a low earnings potential and limited employment opportunities. Thus we may expect countries with long parental leaves or home care allowances to exhibit higher levels of inequality in childcare coverage.

Cultural factors should also be taken into account, as they may be the cause or the effect of social policy development and may influence parents' attitudes and decisions concerning care arrangements (Keck and Saraceno 2013; Pfau-Effinger 2004). A large body of research has investigated the role of cultural factors on employment decisions of mothers, finding that women with traditional values on motherhood and gender roles report a lower commitment to paid work (Cloïn, Keuzenkamp and Plantenga 2011; Fortin 2005; Steiber and Haas 2012). Moreover, several studies show that norms differ along educational lines and that specifically lower-educated women hold more traditional views on gender roles and motherhood. Similar patterns are found among low-income and working-class families (Crompton 2006; Duncan 2005; Duncan, Edwards and Reynolds 2003). Moreover, it impacts upon decisions regarding the preferred care arrangements of those mothers in much the same manner (Debacker 2008). There is also some evidence that the role of norms on employment and care decisions of mothers differ between countries. Although the overall picture is one of greater acceptance of working mothers in recent decades, a report on European Union countries suggests that norms on motherhood, employment and care use have become more traditional in several Central and Eastern European countries (Plantenga and Remery 2009), a trend described as 'refamilization' (Saxonberg and Szelewa 2007). In a context where the dominant cultural norm is against working mothers, it is more difficult to behave differently (van der Lippe and Siegers 1994), particularly for low-skilled mothers who often have fewer employment opportunities and a low earnings potential. Research has demonstrated that the positive effect of higher education on attitudes towards work and motherhood is greater in countries with less traditional views on maternal employment (Sjöberg 2004). Moreover, there is evidence that the impact of defamilizing policies such as childcare services and

parental leave provision is mitigated if cultural attitudes encourage a traditional gender division of care and employment (Budig, Misra and Boeckmann 2012). Thus, the difference in views on care and employment between different social groups might (at least partly) explain the observed inequality in childcare coverage.

In Table 6-1, a summary of the dimensions of the welfare state configuration that are potentially related to childcare inequality is provided together with their expected relationship. In the next sections, we will explore which of these dimensions are actually related to inequality in childcare use.

Table 6-1 Summary of welfare state dimensions potentially related to childcare inequality

Dimension	Expected relationship
Universalism	
Coverage	More coverage → less inequality
Cost	Higher costs → more inequality
Social right	Childcare as a social right → less inequality
State-market nexus	
Supply	More public supply → less inequality
Government spending	Higher spending → less inequality
Defamilization	
Low skilled maternal employment	Higher employment rates → less inequality
Leave	Long periods of well-paid leave → more inequality
Attitudes amongst low skilled mothers	More conservative norms on motherhood → more inequality
Informal care use	More use of informal care → more inequality

6.3 DATA, MEASUREMENT, AND ANALYTICAL STRATEGY

6.3.1 Data

Data are drawn from the European Union Survey on Income and Living Conditions (EU-SILC), wave 2009. The EU-SILC is the main data source for cross-national research on income and living conditions in the European Union as well as for monitoring progress towards the

Barcelona childcare targets. The analysis is complemented with data for the US and Australia, drawn from the National Household Education Surveys Program (NHES), wave of 2005, and the Household, Income and Labour Dynamics in Australia (HILDA) Survey (wave 10, reference year 2010) respectively. The NHES includes an Early Childhood Program Participation Survey (ECPP) in which parents are asked about their childcare arrangements. Both surveys allow replication of the EU-SILC variables.

One of the main obstacles to our research endeavour is the lack of reliable and comparative data to test the hypotheses derived from the literature. We therefore gather country-level data and indicators from different databases to test which determinants may be related to childcare inequality. Our independent variables are drawn mainly from the *OECD Family Database* and the *Multilinks Database*, and from cross-national surveys such as the *International Social Survey Programme* (ISSP) and the *European Values Survey* (EVS). Where necessary, these data are supplemented with country-specific sources.

6.3.2 Measurement of inequality

The dependent variable is inequality in formal childcare coverage. *Formal care services* include care centres (including (early) Head Start and Sure Start), nursery schools, professional child minders and family daycare providers. To measure formal childcare coverage, we calculate a *full time equivalent (FTE) measure* of formal care service use in order to take into account differences in the intensity of care use (i.e. hours of attendance per week): FTE care use data represents the proportion of children who would be receiving childcare if all existing care use were full-time (30 hours per week or more, see chapter 5). The calculation is as follows: FTE = proportion of children in formal childcare * average number of hours per week (as % of 30 hours per week).

The empirical analysis is limited to children below the age of three. Although research suggests that non-parental care should ideally start around the age of one (Han, Waldfogel and Brooks-Gunn 2001), children are commonly enrolled much earlier in a number of countries.

Furthermore, this age bracket allows for homogenous comparison: over the age of three, the role of educational systems becomes very diverse across developed countries, with some countries achieving full coverage in the education system and others catering for these children in childcare services. As a measure of the socioeconomic status, generally three variables are used in the literature: income, occupational class and education (Mackenbach and Kunst 1997). Here we use the educational level of the mother, because 1) we are unable to reproduce family income for the US data; and 2) occupation is strongly correlated with childcare use, as will become apparent below. Furthermore, maternal education is critical for children's development and well-being. Not only do high-educated mothers rely on their human capital to select childcare services for their young children, but a large body of research has shown that they also use it to facilitate their children's cognitive and social development (see Augustine et al. 2009, for an overview). Obviously, if low-skilled mothers use childcare services to a lesser extent, their children face a "double disadvantage" (UNICEF 2008). Children in our sample who are under the age of three are allocated to one of three groups (low, medium and high) according to the educational level of the mother (or father in cases where the mother is absent), as measured with the ISCED classification.

To gauge inequality, we compute a *relative index of inequality* (RII) in FTE childcare coverage. The RII is a regression-based inequality index that is often applied in the empirical literature on socioeconomic disparities in health (Kakwani, Wagstaff and Van Doorslaer 1997; Keppel et al. 2005). It offers some advantages over other inequality indices, including the ratio used in Chapter 5: 1) It is sensitive to the distribution of socioeconomic groups over the population and therefore takes into account the different size of educational categories within countries; and 2) it is calculated over the full range of the distribution of educational levels (and not only low and high levels of education, as is the case with the inequality ratio). This allows meaningful comparisons between countries. We proceed as follows. First, for each country in the dataset, we calculate a slope index of inequality (SII) in FTE childcare coverage through a regression in which FTE childcare coverage is the

dependent variable and educational level the independent variable, adjusted for age. The age adjustment captures the cross-country differences in the age children usually start being enrolled in childcare services. The SII is in fact the slope of the regression line and should be interpreted as the absolute effect on FTE childcare coverage of moving from the lowest level of education to the highest. Because the SII is sensitive to the mean FTE coverage of the population[36], we divide the SII by the weighted average FTE childcare coverage of each country in order to obtain the RII in a second step (and Keppel et al. 2005for further reading on inequality measurement; see Mackenbach and Kunst 1997). The RII takes a value of 0 if childcare coverage is equal over education levels, a positive value if inequality is biased against lower educational levels and a negative value if inequality favours lower educational levels. Table A-2 in annex shows the weighted average FTE childcare coverage and the values of both the SII and RII indices. A drawback of using the RII is that it complicates the interpretation of inequalities. Therefore, we add the distribution of FTE childcare coverage over educational groups to Table A-2 in order to facilitate interpretation of inequalities between educational groups within countries.

6.3.3 Independent variables

Drawing on the relationship between the state, the market and the family, we identify three sets of explanations (universalism, the market-state nexus, and defamilization) for childcare inequality. Table 6-2 summarizes these dimensions and how they are operationalized. Details of the measures are provided in Table A-3 in annex.

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36 Suppose that childcare coverage doubles, then the SII would double as well, even though the relative distance between socioeconomic groups would remain the same. In this article, we are interested in the drivers of inequality per se, not in the drivers of changes in coverage levels.

Table 6-2 Operationalization of explanatory dimensions

Independent variables	Operationalization	Source	Reference year
Universalism			
Coverage	FTE formal childcare coverage (%)	EU-SILC, HILDA, NHES	2008, 2010, 2005
Cost	Net childcare costs for a low-income couple with two children in full-time 'typical' care (% of average wage)	OECD Tax-Benefit model, see Richardson, 2012 and Immervoll and Barber, 2005	2008 (2002 for US)
Social right	Legal entitlement to childcare services (dummy)	Multilinks Database	2009
State-market nexus			
Supply	The number of publicly provided or subsidized childcare slots per 100 children	Multilinks Database, OECD 2009, Yamauchi 2010	Between 2000 and 2005 for EU countries, AU 2006
Government spending	Spending on childcare (% of GDP)	OECD Social Expenditure database, OECD Family Database	2009 (2005 for US, 2010 for AU)
Defamilization			
Low skilled maternal employment	Employment rate of mothers with a low level of education and a youngest child < 3 (%)	EU-SILC, HILDA, NHES	2008, 2010, 2005
Leave	Length of well-paid (> 60% of average wage) leave (months) + squared leave (centred at 9 months)	Multilinks Database, OECD Family Database (Iceland, Australia, US)	2008, 2010, 2005
Attitudes amongst low skilled mothers	Share of mothers with a low level of education holding traditional beliefs on motherhood (%)	European Values Study 2008, International Social Survey Programme 2002 (US and AU)	2008, (2002 US and AU)
Informal care use	FTE informal childcare use (%)	EU-SILC, HILDA, NHES	2008, 2010, 2005

The dimension of *universalism* relates to the importance of availability in equalizing care use, which may be influenced by the coverage rate and by whether there is a legal entitlement to formal childcare, and private childcare costs. As regards costs, the OECD has calculated 'typical' monthly net childcare costs (fees minus cash government subsidies and tax benefits), i.e. out-of-pocket expenses for full-time care use in a 'typical' formal childcare facility for a low-income family (assuming two children, aged two and three, where the male earns 67% and the female 50% of the average wage respectively, see Richardson (2012) for details). Finally, information on whether families have a legal entitlement to formal care services is gathered from the Multilinks Database and dummy-coded.

The *state-market nexus* set of explanations relate to the role of government in providing and subsidizing childcare. To obtain a general insight into the extent of government involvement in the childcare market, we also include public spending on childcare services (in % of GDP), calculated on the basis of the OECD Social Expenditures Database. For the few countries lacking detailed information, we relied instead on figures readily available in the Family Database. Finally, we also include a measure of the number of available childcare slots in public, publicly funded or centre-based (for the US and AU) facilities as a share of children aged 0-2 years (no data for Iceland, Malta and Romania). These numbers warrant due caution, because they are based on a variety of data sources that cannot be harmonized. However, to the best of our knowledge, this is the only available cross-country indicator on childcare supply.

To test the dimension of *defamilization*, we calculate the employment rate of low-skilled mothers with a youngest child under the age of three on the basis of EU-SILC. We also construct a measure on traditional beliefs on motherhood amongst low-skilled mothers on the basis of a question on attitudinal values regarding motherhood, asked in the European Values Survey (EVS) wave of 2008 for European countries and the International Social Survey Programme (ISSP) wave of 2002 for the US and AU (no data for Malta). We use the question "A pre-school child is likely to suffer if his or her mother works" and collapse the

answer categories "strongly agree" and "agree" into one proportion measuring the degree to which maternal employment is perceived as detrimental to a young child (Steiber and Haas 2009; Uunk, Kalmijn and Muffels 2005). For testing the impact of parental leave provisions, we include a measure of 'well-paid leave' drawn from the Multilinks database. Well-paid is defined as amounting to at least 60% of average wage. We use the measure of well-paid leave, and not the total length of (paid or unpaid) leave, because we expect precisely the combination of long duration with reasonable compensation to have an impact on low-skilled mothers' labour market attachment, and thus on inequality in formal care use. We expect the trend to be curvilinear, with short and well-paid leaves associated with lower inequality in childcare coverage and long, well-paid leaves with higher inequality. While the exact tipping point is not known, the literature suggests that the ideal period of leave lasts between 6 months and 1 year. Here, we follow the approach outlined in Keck and Saraceno (2013), where squared leave centred at 9 months is included. Finally, as regards use of informal care, we apply a similar method of measurement as for FTE formal coverage: informal care relates to care provided by grandparents, relatives and friends in a regular week, and we combine intensity and availability of such care arrangements into an FTE measure of informal care.

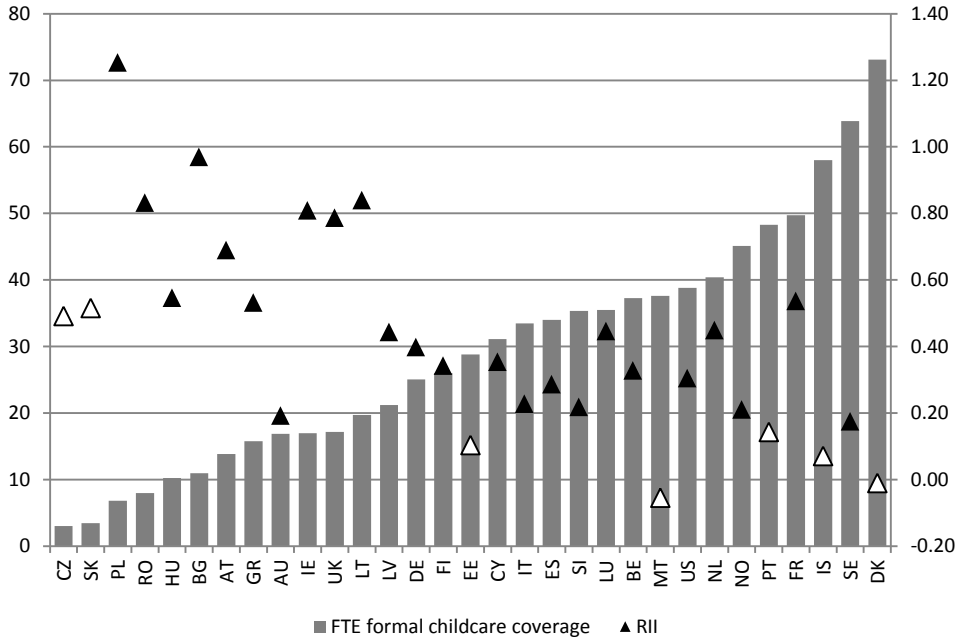
6.4 Analytical strategy

Given the exploratory purpose of our paper, the nature of our data and the small number of observations (n = 31), attention is paid first and foremost to the quality and plausibility of hypotheses (Bonoli 2013). To this end, we first conduct bivariate explorations to investigate whether the selected indicators are plausible drivers of childcare inequality. Second, as a first and careful attempt to check the robustness of our results, we rely on multivariate regression to compare the selected hypotheses.

6.5 EMPIRICAL RESULTS

6.5.1 Inequality in childcare coverage

Figure 6-1 Formal childcare coverage in FTE (left axis) and Relative Inequality Index (right axis), children 0-2, %



Source: Own calculations based on EU-SILC 2009, HILDA 2010, NHES ECPP 2005. Black triangles indicate significant differences between maternal educational levels ($p < 0.05$), white triangles indicate non-significance.

Figure 6-1 shows that the diversity in FTE childcare coverage of 0 to 2 year-olds is huge, ranging from more than 70% of young children enrolled in FTE formal care arrangements in Denmark, and around 60% in Iceland and Sweden, to 10% or less in Central and Eastern European countries such as Bulgaria, Hungary, Romania, Poland, and the Slovak and Czech Republics. Despite their common legacy of high female employment rates facilitated by the extensive availability of daycare provisions for pre-school children, the current coverage rates are indicative of a refamilization trend (*supra*). Moreover, Figure 6-1 shows that even in the high-coverage countries, FTE formal care use is

not universal. A significant portion of children are not catered for by formal childcare facilities. Only Denmark and Iceland succeed in ensuring equality at high levels of care use.

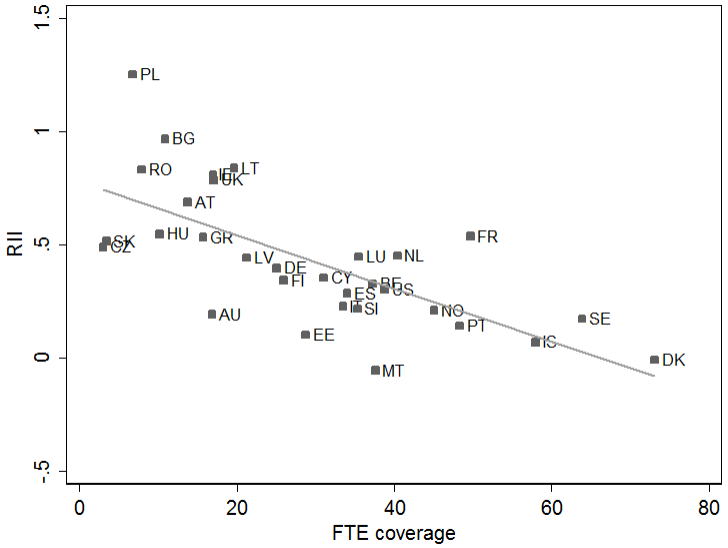
The black triangles in Figure 6-1 represent the RII of FTE formal childcare coverage. In just a few countries are we unable to discern a significant difference in FTE coverage: in Denmark, Iceland, Portugal, Malta and Estonia, children from different social backgrounds are more or less equally represented in formal childcare services. In all other countries in our sample, children with a low-educated mother are significantly less likely to use formal childcare services than children with a higher-educated mother. The inequalities are particularly striking in low-coverage countries such as Poland, Romania, and Bulgaria, but also in countries with high levels of FTE formal care use such as France, the Netherlands, Luxembourg and the US (see Table A-2 in annex for coverage rates across levels of education). Such outcomes cast doubt on the efficiency of childcare as an instrument for mitigating social inequalities.

Given the fact that 1) no country has succeeded in expanding FTE formal childcare coverage to cover all children; and 2) most countries display (often huge) inequalities between social groups in FTE formal childcare coverage, we cannot expect childcare to mitigate social inequalities just yet. In the next section we set out to explore how the institutional configuration of the welfare state is related to the observed inequalities in FTE childcare coverage.

6.5.2 Bivariate correlations

The set of explanations related to the dimension of universality concern the availability and accessibility of childcare facilities. We expect higher FTE coverage to be associated with lower levels of inequality, and higher out-of-pocket fees with higher levels of inequality. Figure 6-2 and Figure 6-3 show the bivariate relationship between these independent variables and RII. We also expect countries with legal entitlement to childcare to exhibit lower levels of inequality.

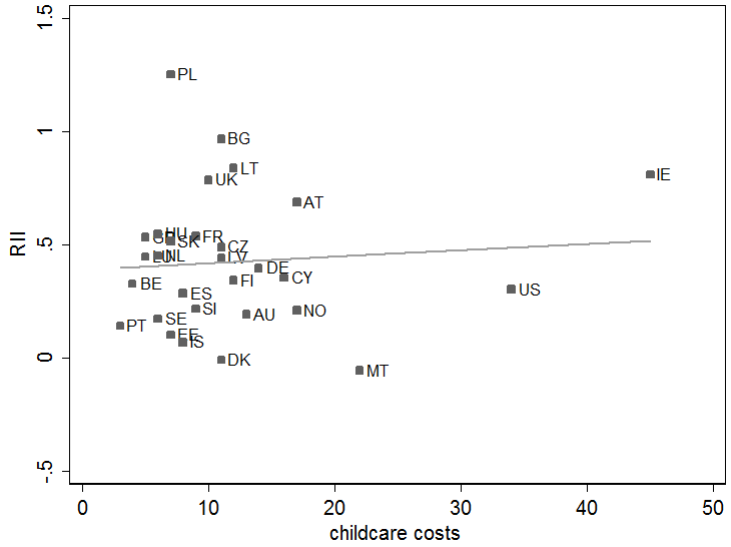
Figure 6-2 FTE formal childcare coverage and Relative Inequality Index (r = -0.69)



It should be noted first and foremost that Figure 6-2 shows a strong and negative association between FTE coverage and RII (r = -0.69). The higher the coverage rate, i.e. the more children are covered through formal childcare facilities, the more equal its distribution becomes. This suggests that universalism, i.e. universalizing childcare coverage, is indeed a major precondition for equality promotion.

Second, Figure 6-3 shows the relationship between childcare costs and RII. Essentially, there is no association between the two (r = 0.08); if we discard outlier Ireland, the association actually becomes negative (r = -0.13). This *prima facie* suggests that childcare cost has little explanatory value for childcare inequality. A rather low net childcare cost does not preclude high levels of inequality, and vice versa. Finally, we also expected legal entitlement to childcare to be inversely related to childcare inequality. As it turns out, the average RII in countries where childcare is a 'social right' is indeed significantly (RII: 0.16; 95% CI[0.05-0.28]) lower than in countries without such entitlement (RII: 0.49; 95% CI [0.37-60.5]).

Figure 6-3 Out-of-pocket childcare costs and Relative Inequality Index (r = 0.08)



We also hypothesized that the state-market balance in childcare provision would be associated with childcare inequality. In particular, we expected a larger role for government in providing and or subsidizing childcare facilities to be related with lower inequality. Figure 6-4 shows that the correlation between our indicator of childcare supply (the number of slots in publicly operated or subsidized facilities) and RII is indeed negative and rather strong (r = -0.56). The more slots that are publicly provided and/or funded by government, the more equal care use becomes. Similarly, Figure 6-5 shows a negative, albeit weak, relationship between government expenditures for childcare and RII (r = -0.25). This suggests that governments have to spend more in order to equalize access, yet that high spending does not preclude inequality (France is a case in point. All in all, state involvement in childcare provision does seems to be determinative of childcare inequality.

Figure 6-4 Childcare supply and Relative Inequality Index (r = -0.56)

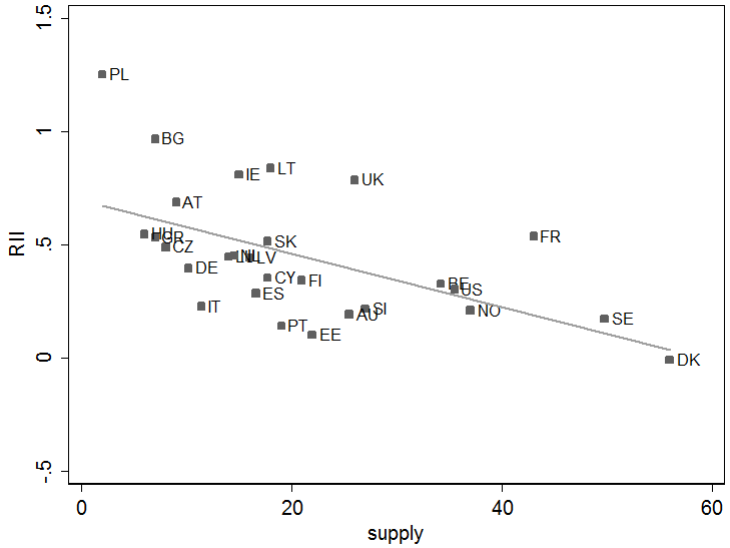
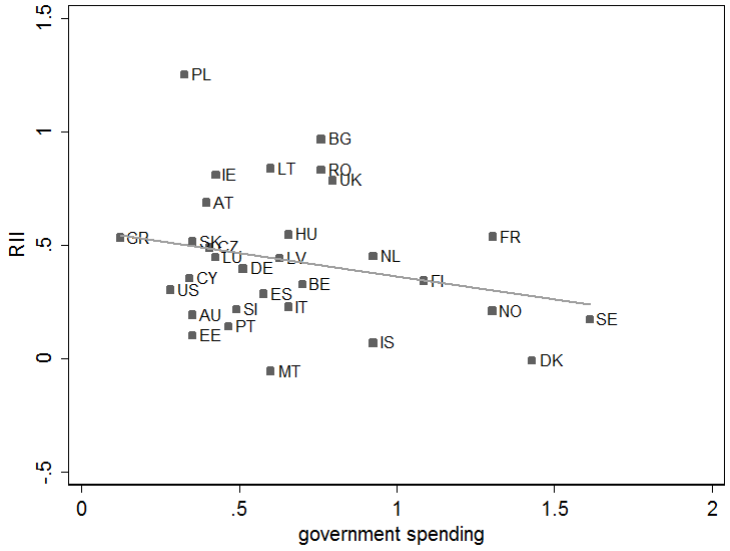


Figure 6-5 Government expenditure on childcare services and Relative Inequality Index (r = -0.25)



Finally, we also expected the manner in which women's employment is structured to play a role in explaining childcare inequality. Higher employment rates amongst low-skilled mothers ought to be associated with lower levels of childcare inequality, given the close link between the two. Conservative norms on motherhood are expected

to coincide with higher levels of childcare inequality, while well-paid parental leave provision should have a U-curved relationship with childcare inequality. In Figure 6-6, low-skilled maternal employment shows the expected relationship with RII (r = -0.39). The more low-skilled mothers of young children are employed, the more their children tend to be enrolled in formal childcare facilities, and the lower inequality in childcare coverage. Figure 6-7 suggests that the more low-skilled mothers hold conservative views on motherhood and employment, the less they are likely to use formal childcare (r = 0.29). Although the strength of the relationship is weak, suggests that cultural explanations must be taken into account.

Figure 6-6 Low skilled maternal employment and Relative Inequality Index (r = -0.39)

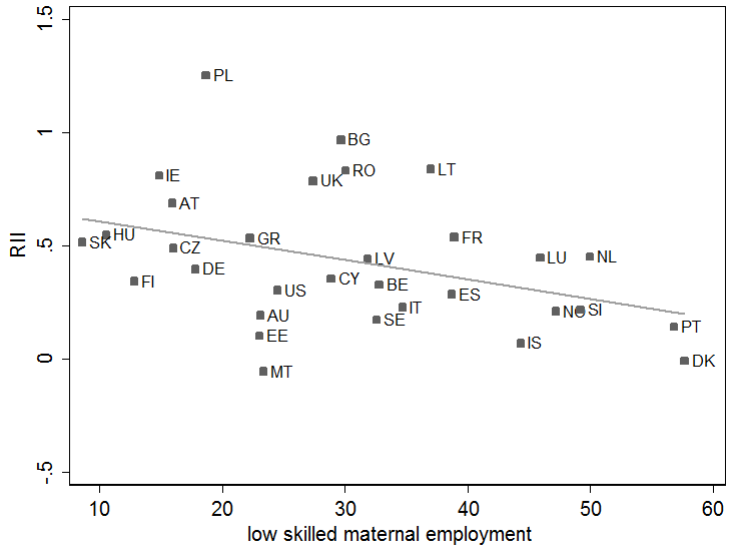
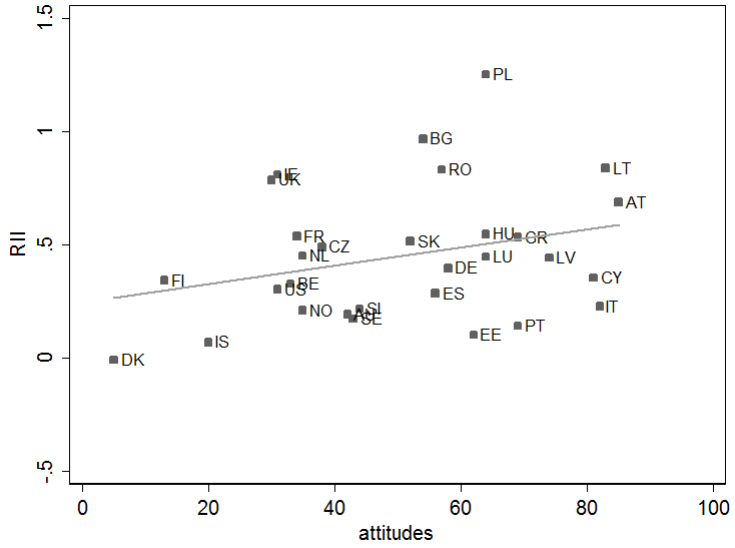


Figure 6-7 Attitudes on motherhood and Relative Inequality Index (r = 0.29)



We consider the relationship between the length of well-paid parental leave (including cash-for-care schemes) and childcare inequality in Figure 6-8. We expect the relationship to be curvilinear, and the quadratic fit indeed suggests that RII is higher when leave is either very short or very long (r = 0.24). Long periods of remunerated leave seem to act as a disincentive for low-skilled women to (re)enter the labour market. Finally, Figure 6-9 shows that the relationship between RII in FTE formal care and the number of children using informal care arrangements is positive (r = 0.33), as expected. Generally speaking, the use of informal care arrangements seems to be associated with higher inequality in formal care arrangements.

Thus, *prima facie*, it seems that all three dimensions identified on a theoretical basis are related to inequality in childcare coverage across children from different social backgrounds. We find meaningful associations between RII and FTE childcare coverage, government spending and public childcare supply, parental leave schemes, informal care arrangements, and attitudes on motherhood. We find no evidence of a relationship with private childcare costs.

Figure 6-8 Length of well-paid parental leave and Relative Inequality Index (r = 0.24)

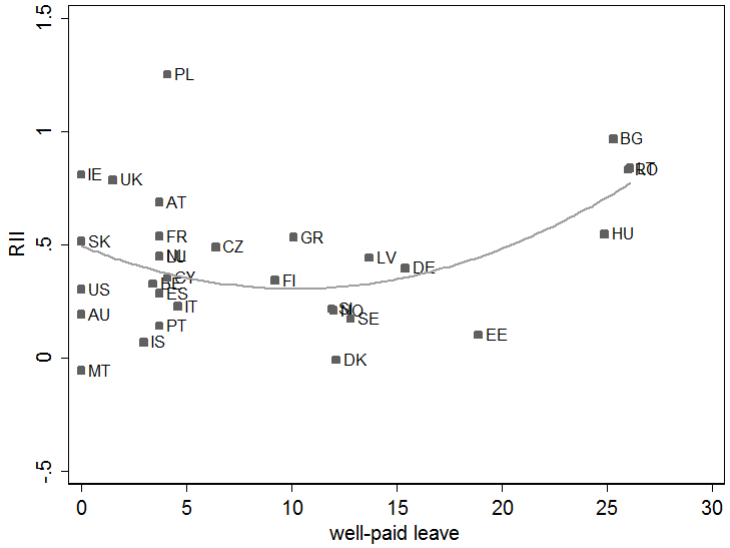
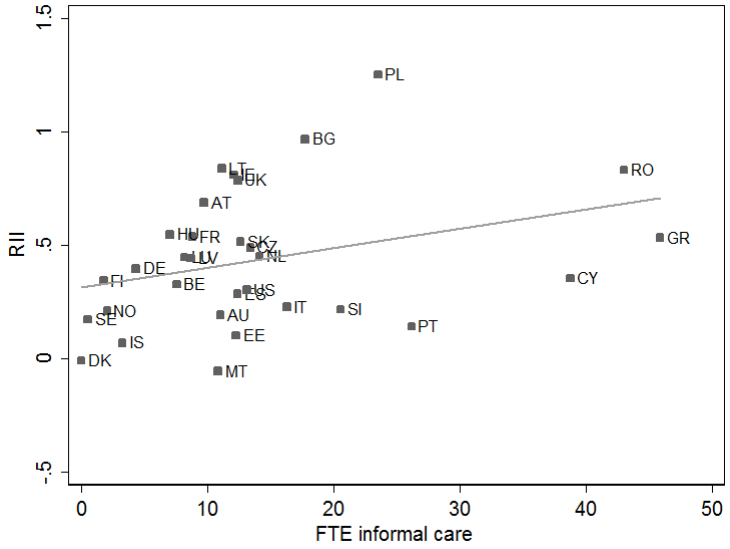


Figure 6-9 Informal care arrangements and Relative Inequality Index (r = 0.33)



6.5.3 Regression results

The above bivariate explorations provide preliminary evidence for the role of universalism, government involvement, and defamilization policies. To test the robustness of these explanations, we conduct OLS regression analyses in which RII is regressed on the explanatory variables. Ideally, we would like to test the independent effect of all explanatory variables in a single model. Table 6-3 however shows that low-skilled maternal employment and the number of publicly provided childcare slots are highly correlated with childcare coverage (r = 0.75 and 0.82 respectively). The simultaneous inclusion of these variables in the same regression model would lead to problems of multicollinearity. To overcome this, we follow our theoretical approach and include every explanatory dimension separately in the regression model. As such we clarify within every dimension the explanatory weight of the country characteristics we distinguished earlier. Given the small sample size and some minor issues of heteroskedasticity, we adjust the standard errors using the Huber-White sandwich estimator[37].

Table 6-3 Correlations between explanatory variables

	FTE Coverage	Cost	Social right	Supply	Expenditures	Maternal employment Attitudes		Parental Leave
Cost	-0.09							
Social right	0.52	-0.06						
Supply	0.82	0.05	0.56					
Expenditures	0.67	-0.15	0.63	0.71				
Maternal employment	0.75	-0.27	0.16	0.48	0.41			
Attitudes	-0.40	-0.22	-0.43	-0.60	-0.55	-0.14		
Parental leave	-0.05	-0.24	0.26	-0.12	0.20	0.02	0.27	
FTE Informal care	-0.29	-0.09	-0.45	-0.45	-0.61	-0.03	0.48	-0.15

Note: for data sources and definitions, see Table 6-2.

[37] Regression diagnostics are available from the authors upon simple request.

Yet even so, when interpreting the results, one should be aware that the small number of observations reduces the explanatory power of the model and increases the risk of type-II errors. The results should thus be regarded as an exploratory and tentative attempt at explaining childcare use inequality. We performed several sensitivity analyses (not shown) to assess the robustness of our findings. First, to check for outliers, we re-estimated all models using a jack-knife procedure omitting one country in each estimation (see Kenworthy 1999 for a similar approach). Second, Poland and Ireland were identified as potentially influential cases, hence we also estimated all three models without these countries. Finally, we estimated the models including per-capita gross domestic product (GDP) to control for differences in wealth and economic development. In all three cases, the interpretation of the results was unaffected. Figure 6-10 shows the standardized coefficients of the independent variables; full models with robust standard errors are provided in Table A-4 in annex.

In the first model, we regressed explanations relating to the dimension of universality on RII. Figure 6-10 shows that coverage is strongly related to RII. An increase in FTE coverage with one standard deviation is associated with 0.62 standard deviation decrease in RII. In contrast, neither legal entitlement to a childcare slot nor private childcare costs are related to childcare inequality.

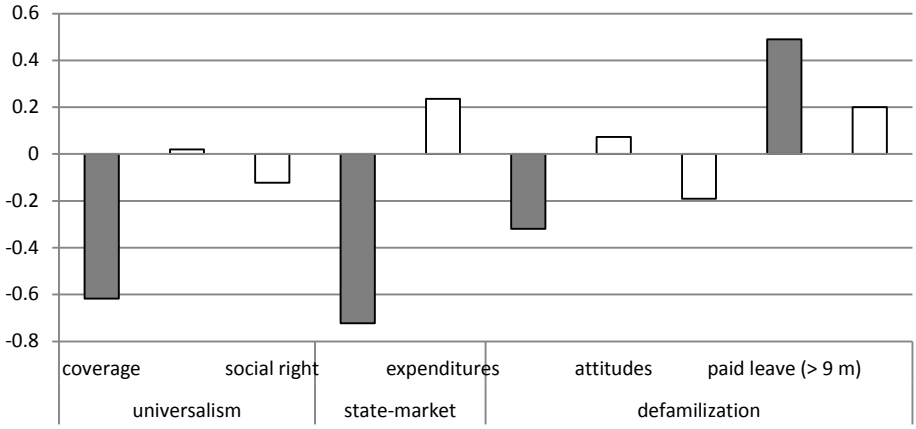
Model 2 shows the standardized coefficients of the independent variables relating to government involvement in childcare provision. The supply of public or subsidized childcare slots per 100 children is significantly and negatively related to RII. An increase in supply with one standard deviation is associated with a 0.72 standard deviation decrease in RII. The coefficient for government expenditures is not significantly different from zero. The two coefficients together suggest that it is not spending *per se*, but *the manner in which* resources are spent that matters. In other words, what matters is the number of childcare slots that are created. From a public spending point of view, this result calls for further research on the role of the private sector in childcare service provision, as it suggests that some countries are more efficient

than others in the provision or support of childcare services that are equally distributed over the population.

The third model, finally, shows the standardized coefficient for the indicators reflecting the dimension of defamilization. The coefficients confirm the association between employment and childcare inequality. A standard deviation increase in the employment rate of low-skilled mothers results in a 0.3 standard deviation decrease in childcare inequality. A separate role of culture cannot be confirmed in this model. The share of low-skilled mothers believing that "a pre-school child is likely to suffer if his or her mother works" is not significantly related to childcare inequality. The coefficients of well-paid leave and squared leave show that, ceteris paribus, a standard deviation increase in the duration of well-paid leave that initially lasts longer than 9 months is associated with a 0.5 standard deviation increase in childcare inequality. Shorter periods of leave are not significantly associated with childcare inequality. Finally, although the bivariate procedure described above suggests that the use of informal care arrangements was associated with higher inequality, its actual impact on RII is negligible.

In sum, the regression models only provide evidence for the role of childcare coverage and public supply, maternal employment and parental leave policies. The prima facie evidence provided through bivariate associations for informal care use, cultural values, government expenditures, and the legal entitlement to a childcare slot are not confirmed. Both bivariate and multivariate exercises did not confirm any meaningful relationship between childcare costs and inequality.

Figure 6-10 Standardized regression coefficients on age-standardized Relative Inequality Index



Note: the figure shows standardized coefficients of three separate models (full estimates in Table A-4 in annex). Shaded bars are significant ($p < 0.05$), blank bars are not significant.

We should however take care not to jump to conclusions on the basis of these regression models. As the three explanatory dimensions and their underlying indicators are substantively interwoven, we risk rejecting a hypothesis regarding a direct impact while the relationship might be of an indirect nature. Consider the case of the impact of cultural values on childcare inequality. Insofar as long and well-paid parental leave policies are a reflection of the dominant norm regarding motherhood, the impact of cultural values might be important yet uncaptured by our model. This cannot be accounted for given the methodology applied and the data at hand. Similarly, the impact of a legal entitlement to a childcare slot might be of a second order in that it ensures the provision of sufficient supply, which in turn has a significant impact on childcare inequality. For example, the good results of Denmark and Iceland, and the relatively low inequalities in Sweden, may be due to the fact that in these countries all children from the age of one onwards are legally entitled to a childcare slot and government is obliged to meet demand.

Our finding that private childcare costs are not associated with childcare inequality should also be qualified. Most of the early research

on childcare in the 1970s and 1980s was economic in nature and focused in particular on the role of childcare costs in the US, i.e. the fees parents had to pay themselves, in explaining female labour supply and childcare demand (Blau and Robins 1988; Connelly 1992). These studies invariably indicated (though not always to the same extent) that mothers' decision to take on employment and to purchase childcare was highly sensitive to childcare costs. More recent inquiries for a broader set of countries, however, tend to find that childcare costs are important only in interaction with availability and childcare supply, and that primarily the latter determines childcare use in European countries where childcare is often heavily subsidized and regulated but rationed (Del Boca and Pasqua 2005; Wrohlich 2011). Detailed country studies have indeed shown that several of the European countries have implemented an income-related tariff system for their publicly provided or subsidized childcare services (European Parliament 2007; UNICEF 2008). Even in countries where childcare services are mostly privately provided, such as the US or the UK, parents with low incomes almost always qualify for government subsidies via targeted benefits or tax exemptions.

Our results confirm the truism that ensuring the affordability of childcare is futile if there are not enough slots available anyway. That is not to say that costs are irrelevant, particularly in the case of low-income families and/or in specific countries (notably Ireland and the United States). Moreover, the affordability of childcare depends not only on childcare costs as such, but also on the broader tax-benefit system and labour market policies and how these affect family income. OECD analyses have shown that in some countries employment is unattractive to low-income families, irrespective of childcare costs (Immervol and Barber 2005). Hence cost is by no means the only relevant factor when it comes to affordability. Our results should therefore be qualified as shedding light on the *direct* drivers of childcare inequality, reflecting the current institutional setting of countries.

6.6 CONCLUSION

In one of its first comprehensive reports on childcare, the OECD noted that "*a public supply-side investment model managed by public authorities brings more uniform quality and superior coverage of childhood populations than parent subsidy models*" (OECD 2006). We may now add that they also bring more equality. Achieving equality in childcare coverage is a necessary condition for childcare services to be effective in facilitating maternal employment and breaking the intergenerational chain of child poverty by furthering human capital and child development. In the majority of countries, however, childcare coverage is stratified by maternal educational level. Children from families with a low-educated mother use formal childcare to a much lesser extent than children living in families with a high-educated mother. The only countries succeeding in equalizing use at high coverage levels are Denmark and Iceland. All other countries in our sample report low rates of formal childcare usage, high levels of inequality in formal care use, and in most cases a combination of both.

How can this childcare inequality be explained? Our results shed light on the impact of (aspects of) the welfare state configuration on inequality in childcare use. We find that childcare coverage and supply, maternal employment, and well-paid parental leave schemes are associated with inequality in childcare coverage. For a country to increase equal coverage across social groups, our results suggest that the number of available childcare slots should be increased, in particular by means of public provision or supply-side subsidies. Governments should also pursue a coherent set of labour market and family policies. The latter is an important observation, as the objectives of family and labour market policies may be at odds. We find, for instance, that long periods of well-paid parental leave can increase inequality in childcare coverage, because low-skilled mothers are encouraged to become homemaker. At the same time, our results demonstrate that a high share of low-skilled maternal employment can decrease inequality in childcare

coverage. Policymakers should be well aware of such incoherencies when implementing social policy.

Some caveats are in place though. Our explanatory power is limited because of the exploratory nature of our analysis and because we are constrained by data availability. Some possible explanations, such as the local and regional distribution of childcare slots, the complex systems of government subsidies and the specific rules and regulations (for instance regarding quality regulations, priority rules for disadvantaged families) might be very country-specific. Moreover, the lack of reliable and comparative data on service characteristics (in particular relating to the quality of services), and the inability to reliably distinguish private from public care facilities impedes our endeavor. It is also questionable whether all dimensions of welfare states identified on the basis of the literature are appropriately measured by the available indicators. Despite these drawbacks, this chapter constitutes a first attempt at improving our understanding of the important issue of inequality in childcare use.

CHAPTER 7

INVESTING IN CHILDCARE SERVICES: A SHOT MISFIRED? A PANEL APPROACH TO INEQUALITY IN CHILDCARE USE ACROSS EUROPEAN COUNTRIES*

7.1 INTRODUCTION

In the previous chapters I have shown that childcare services are increasingly regarded one of the most important policy levers to mitigate social inequalities under the social investment paradigm. Part and parcel of the so-called child-centred investment strategy, high-quality childcare is expected to be effective in reducing poverty and increasing employment rates by allowing both parents to engage in paid employment, and to benefit the cognitive and non-cognitive development of young children as well. This in particular holds for children from a disadvantaged background, ensuring later educational success and improved labour market prospects.

In this chapter, I aim to further our knowledge on childcare as a potential equaliser by adopting a dynamic approach towards childcare use and government investment. Expanding the number of childcare places has been a government priority across European welfare states in

* I would like to thank Annemie Nys and Vincent Corluy for their much appreciated help with the data.

recent years, and almost all countries have increased expenditures on childcare. But does such increase in government expenditures also lead to a better performance in terms of equity? Based on several cross-sectional waves of EU-SILC data (2006-2010) and spending data derived from the OECD SOCX database (2005-2009), I look at 1) trends in spending, childcare use, and inequality in childcare use; and 2) the relation between spending and childcare use as well as between spending and inequality in childcare use. If an ever increasing public effort for childcare services does not lead to an expansion of its use across the income distribution, that shot might be misfired indeed. A dynamic account of childcare and inequality will allow us to gain better insight in the impact of government investments on inequality in childcare coverage in the era of social investment.

7.2 Background and research questions

Viewing the issue of childcare through Matthew's lens (see chapters 2, 3, 5 and 6) reveals that the use of formal childcare services is socially stratified: higher income families or families with a highly educated mother use childcare services to a much larger extent than lower income families or families with a lower skilled mother. Chapter 5 hypothesizes that due to this social gap in childcare use, government investment in childcare is likely failing to live up to its inequality-reducing potential or, worse, exacerbate rather than mitigate social inequalities. The results of chapter 6 suggested that government expenditures on childcare services *as such* are not sufficient to reduce inequality; what matters is *how* the budget is spent. In chapter 2, then, it was shown that government investment in childcare services has increased in all European countries in the pre-crisis period even though between-country variation remains huge. The Scandinavian countries, but also continental countries such as France, the Netherlands, and the liberal country the United Kingdom are amongst the big spenders; In contrast, the Central and Eastern European countries, the Southern countries, but also Ireland and Austria are low spenders. Spending on childcare certainly does not

follow the traditional Esping-Andersen typology of welfare states (Bonoli and Reber 2010). Moreover, ample differences are in place regarding how government budgets are spent. Some countries (e.g. the United Kingdom and the Netherlands) subsidize demand through a voucher system or tax credits, other countries subsidize not-for-profit providers (e.g. Belgium, France, Portugal) while in still other childcare services are mainly provided by the government (e.g. Sweden, Denmark). Finally, during the first years of the crisis (2007-2009), the increase in spending came to a halt in several countries and even reversed in Greece, Slovenia, and the United Kingdom.

Findings from the previous chapters are based on cross-sectional empirical analyses; in this chapter I want to explore the impact of social spending on inequality in childcare coverage over time. Although there is a large body of research investigating the impact of social spending on income inequality (e.g. OECD 2008 for an overview), to my knowledge no study has looked into the relationship between social spending and inequality in childcare service use. Some researchers have explored the determinants of childcare spending, though. Bonoli and Reber (2010) empirically investigated political arguments for public spending on childcare expansion across OECD countries. They found that childcare demand (as measured by women's employment) and partisan effects (as measured by the presence of social democratic and religious parties, and the share of women in parliament) are related to public spending on childcare. Moreover, they also found evidence for a crowding out effect: countries that spend more on old age have little budgetary room to manoeuvre and spend less on 'new risk policies', including childcare services. Here, I will depart from the varied pattern of spending on childcare over time and between countries, and explore the following research questions:

> Research question 1: *did the increase in government spending for childcare services yield higher levels of childcare coverage for children aged 0-2 years?*

Research question 2: *does more government spending for childcare services lead to less inequality in the coverage for children aged 0-2 years?*

7.3 DATA AND VARIABLES

Drawing on data from EU-SILC and the OECD SOCX database (see previous chapters), in this chapter I estimate the effect of public spending on childcare services on 1) childcare coverage for children aged 0-2; and 2) inequality in coverage for children aged 0-2. I have reliable[38] data for 22 European countries over five years (from 2005 to 2010). Countries included are Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Iceland, Italy, Luxemburg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.

The dependent variables are *childcare coverage for children aged 0-2 years* and *inequality in childcare coverage for children aged 0-2 years*. Coverage is calculated as a FTE measure, similar to the one used in chapters 5 and 6. I have also tested the raw coverage rates with consistent results (not shown). Inequality is measured using a relative index of inequality (RII) in FTE childcare coverage, similar to the one use in chapter 6. Because I only make use of data from EU-SILC in this chapter to calculate inequality indices, I am able to gauge socioeconomic disparities using equivalized disposable income instead of educational level of the mother. I have proceeded as follows: First, I calculated income quintiles for families with young children based on standardized disposable household income in order to rank these families from low to high

[38] EU-SILC was launched in 2003 including 6 EU countries, and started formally in 2004 with 15 EU countries, but childcare data from the 2004 wave are often unreliable and the results for some countries diverge substantially from official statistics or the subsequent SILC waves. From 2005 onwards, the results are far more stable. Most recent wave available for researchers is 2011, but at this point detailed spending data in the OECD SOCX database is only available up to 2009.

incomes. Second, for each country in the dataset, a slope index of inequality (SII) was calculated by means of an OLS regression in which FTE childcare coverage is the dependent variable and income quintile the independent variable, adjusted for age. Third, the SII is divided by the weighted average of FTE coverage for children aged 0-2 years. I have also tested other measures of inequality, such as the quintile ratio (see chapter 5) and the concentration index (see Lambert, 2001, for further reading), again with consistent results (not shown).

The independent variable of interest is *spending on childcare services*. Drawing on the methodology developed in Meeusen and Nys (2014), I draw spending data from the detailed OECD SOCX database which categorizes absolute amounts of yearly spending. Included here is spending on family programmes ('daycare/home-help services' and 'other benefits in kind'), expressed as percentage of GDP.

Because spending will be driven not only by deliberate (political) efforts to increase spending, but also by demand and demographic as well as economic pressures, I include the following control variables. First, *Maternal employment*, calculated as the employment rate of mothers with a youngest child under 3 years (adhering to the ILO definition of employment of have worked at least 1 hour during the reference week) as a proxy for childcare demand. Second, the *proportion of the population 0-5* calculated as a share of the total population to control for demographic pressures. Third, the natural logarithm of *GDP per capita*, expressed in 2005 US dollars, to control for level of economic development. It can be expected that the level of economic development partly determines the scope for social spending. Finally, the results from chapter 6 suggest that institutions such as parental leave also have an influence on the level of inequality in childcare coverage. To capture this, I also include the *period of well-paid leave* (centred at 9 months, see chapter 6) and its square. For the model estimating the impact of spending on inequality, I also add the FTE coverage rate as a control variable. As we shall see below, it is essential to asses inequality in conjunction with overall coverage rates.

Bonoli and Remer (2010) noted that childcare is a domain in which issues of reverse causality are particularly salient. Moreover, the process

of change affected by social spending is bound to be inert: one cannot expect investments in childcare to have an immediate impact on coverage rates, certainly not in the case of supply-side subsidies. To account for (at least part) of this inertia and for the issue of reverse causality, the independent variables are lagged one year. Descriptive statistics for the variables are shown in Table 7-1.

Table 7-1 Descriptive statistics of dependent and independent variables

Variable	N	Min	Mean	Max	Overall SD	Between SD	Within SD
Dependent							
FTE Childcare coverage	111	.017	.301	.771	.174	.176	.028
RII	111	-.02	.207	.574	.152	.143	.053
Independent							
Childcare spending (% of GDP) t-1	111	.1	.769	2	.480	.477	.088
Natural log of GDP per capita (PPP US$) t-1	111	2.07	3.39	4.48	.601	.616	.040
% of population age < 5 t-1	111	.042	.055	.077	. 008	.008	.001
Maternal employment rate (child < 3) t-1	111	.135	.534	.830	.191	.191	.039
Well-paid leave (centered at 9 months, weeks)	111	-9	-1.488	15.9	6.035		
Well-paid leave squared	111	.04	38.308	252.81	48.534		

7.4 ESTIMATION METHOD

This chapter is based on an unbalanced panel in which 111 observations are distributed across 23 countries (N) and 5 years (T). No reliable data on maternal employment is available for Hungary in 2005 and for Slovak Republic in 2009 and 2010[39], and France is not included in the EU-SILC in 2008. Compared with purely cross-sectional data (for

[39] For Slovak Republic, the maternal employment rates decline sharply in 2009 on the basis of EU-SILC, while being stable in the prior survey years. A similar exercise on the basis of the Labour Force Survey did not reveal such decline, nor do the official employment statistics for Slovak Republic.

instance used in chapter 6), panel data[40] are appropriate to study dynamics of change, *in casu* dynamics of change in social spending on childcare coverage and inequality. Ordinary Least Squares (OLS) regression models are not suitable in the presence of serial correlated error terms (Hicks 1994). For instance, one cannot assume that social spending within a country is not interdependent over time, which means that the error terms will not be independent from one year to another.

Several estimation methods to properly analyse panel data have been proposed in the literature. Bonoli and Remer (2010) estimate a pooled regression analysis with panel-corrected standard errors (PCSE). However, Beck and Katz (1995) have noted that this estimation method is only suitable for Ts larger than 20. Hence, since I have more N (country observations) than T (time points), a PCSE pooled regression model is less appropriate for my purposes. To deal with this problem, it is often suggested in the literature to use Fixed Effect (FE) or Random Effect (RE) models (Bartels 2008). Both modelling approaches account for unobserved heterogeneity inherent in clustered data. In fact, an F-test and the Breusch-Pagan LM test formally showed that the presence of fixed effects (FE) as well as random effects (RE) cannot be rejected. Here I estimate a RE model for theoretical as well as methodological reasons (Brady 2005). FE models assume constant variance across groups but, theoretically speaking, it makes little sense to assume that the impact of spending on childcare coverage and inequality will be constant between countries. E.g. some countries subsidize demand through childcare vouchers while in other countries childcare services are publicly supplied. The kind of spending differs between countries which means that I'm interested in the between-country as well as the within-country (over time) variance, which warrants the use of a RE model. Methodologically speaking, because FE models absorb approximately 1/T degrees of freedom, estimates are inefficient in small

[40] In sociology, panel data of this kind are often referred to as time-series cross-sectional (TSCS) models, although Beck and Katz (1995) make a clear distinction between the two: TSCS data has fewer N but many T, while panel data are supposed to have more N but fewer T.

samples such as the one at hand in this chapter. Moreover, because variation in spending over is often limited in the sample, their effects will be highly collinear with the fixed effects (Wooldridge 2003). Formally, a Hausman (1978) specification test indicated that a RE was preferable to a FE model as well.

7.5 DESCRIPTIVE RESULTS

7.5.1 Trends in childcare spending

Table 7-2 summarizes spending on childcare services as a percentage of GDP in 23 European countries between 2005 and 2009 (the spending data are lagged one year). First of all, corroborating the trends in spending data on family policy discussed in chapter 2, the average spending on childcare services has increased from 0.72% of GDP to 0.83%. However, the data show considerable variation in levels of spending as well as in changes over time. Countries such as Iceland, Ireland, Norway, Sweden and the United Kingdom have quite substantially increase their childcare efforts; for Ireland this amounts to an increase with 60%. Two countries have actually decreased their budgetary efforts: Netherlands and Slovenia. The former have increased spending up to 2007 while in 2008 a sharp decrease occurs. In 2009 the budget started to rise again. In several countries, the increase was modest (Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Italy, Spain) or non-existent (Czech Republic, Greece, Hungary, Luxemburg, Poland, Portugal, Slovak Republic). In 2009, spending levels range from 0.1% of GDP in Greece to 2.0% of GDP in Denmark and Sweden.

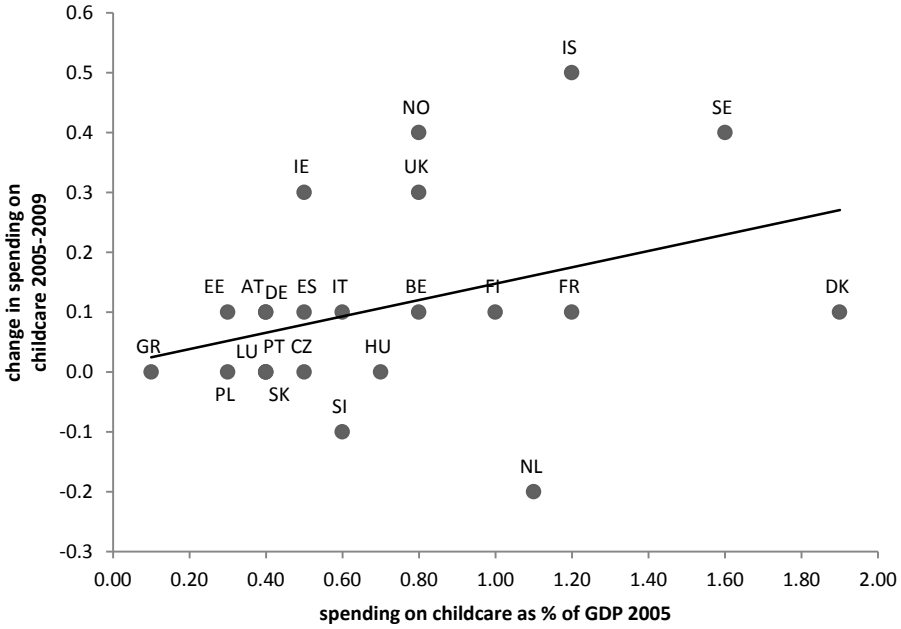
Table 7-2 Social spending on childcare services, European countries, % of GDP

Country	2005	2006	2007	2008	2009	Change 2005-2009
AT	0.40	0.40	0.40	0.40	0.50	0.10
BE	0.80	0.80	0.80	0.80	0.90	0.10
CZ	0.50	0.50	0.40	0.50	0.50	0.00
DK	1.90	1.90	1.80	1.90	2.00	0.10
EE	0.30	0.30	0.30	0.40	0.40	0.10
FI	1.00	0.90	0.90	1.00	1.10	0.10
FR	1.20	1.20	1.30	1.20	1.30	0.10
DE	0.40	0.40	0.40	0.40	0.50	0.10
GR	0.10	0.10	0.10	0.10	0.10	0.00
HU	0.70	0.70	0.60	0.60	0.70	0.00
IS	1.20	1.40	1.50	1.60	1.70	0.50
IE	0.50	0.50	0.60	0.70	0.80	0.30
IT	0.60	0.70	0.60	0.70	0.70	0.10
LU	0.40	0.40	0.40	0.60	0.40	0.00
NL	1.10	1.30	1.30	0.80	0.90	-0.20
NO	0.80	0.80	0.90	1.00	1.20	0.40
PL	0.30	0.30	0.30	0.30	0.30	0.00
PT	0.40	0.40	0.40	0.40	0.40	0.00
SK	0.40	0.40	0.40	0.40	0.40	0.00
SI	0.60	0.50	0.50	0.50	0.50	-0.10
ES	0.50	0.50	0.60	0.60	0.60	0.10
SE	1.60	1.70	1.80	1.90	2.00	0.40
UK	0.80	0.90	1.00	1.00	1.10	0.30
Mean	*0.72*	*0.74*	*0.75*	*0.77*	*0.83*	*0.11*
SD	*0.43*	*0.46*	*0.48*	*0.47*	*0.51*	*0.16*
CV	*0.60*	*0.62*	*0.63*	*0.61*	*0.62*	*1.51*

Source: Meeusen and Nys (2014) based on OECD SOCX database. Additional calculations by Annemie Nys.

Second, although the period under consideration is short, there is no evidence for convergence (see Kittel and Obinger 2003 for a similar approach). The coefficient of variation reported in Table 7-2 slightly increases, which means there is no indication for *sigma* convergence (convergence in spending levels). There is no evidence for *beta* convergence or catch up either. Beta convergence indicates that countries with initial low levels of spending report faster growth in spending on childcare than countries with already high spending levels. Given the importance attached to childcare services at the European level, one might expect that laggard countries would feel pressured to start investing more. This is however not what happened. Figure 7-1 shows the 2005-2009 change in spending on childcare as a function of spending in 2005. In fact, in turns out that countries with initial high levels of spending have grown faster than welfare states with underdeveloped childcare systems.

Figure 7-1 2005-2009 change in spending on childcare and spending on childcare in 2005



7.5.2 Trends in FTE childcare coverage and inequality

Table 7-3 summarizes the evolution of FTE childcare coverage for children aged 0-2 years between 2006 and 2010; Table 7-4 the evolution of inequality in FTE childcare coverage for children aged 0-2 years between 2006 and 2010. Across the 23 countries included in the sample, FTE coverage has known a modest increase of 1.8 percentage point (+7%). The general figure disguises substantial variation between countries, however. In some countries FTE coverage has strongly increased: in particular Germany (+59%), Estonia (+37%), Norway (+26%), and Slovenia (+23%). In others a decrease can be observed, notably in Belgium (-15%), Greece (-33%), and Italy (-35%). The coefficient of variation provides no evidence for sigma convergence. Likewise, Figure 7-2 provides no evidence for beta convergence. Despite the general but small increase in FTE coverage across countries, a real process of catching-up has not occurred.

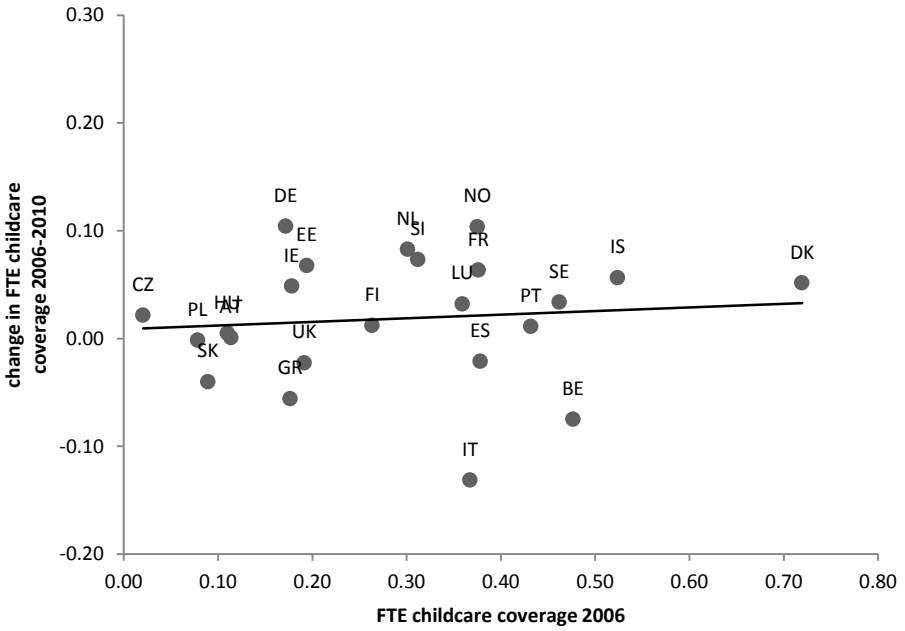
Table 7-3 Evolution of FTE childcare coverage for children aged 0-2 years, 23 European countries, %

Country	2006	2007	2008	2009	2010	Change 2006-2010
AT	11	12	12	14	11	0
BE	48	44	47	37	40	-7
CZ	2	2	2	3	4	2
DE	17	19	22	25	28	10
DK	72	71	72	73	77	5
EE	19	23	19	29	26	7
ES	38	37	35	34	36	-2
FI	26	25	25	26	28	1
FR	38	38		44	44	6
GR	18	15	16	16	12	-6
HU		11	10	10	11	1
IE	18	25	22	17	23	5
IS	52	59	60	58	58	6

IT	37	33	35	33	24	-13
LU	36	31	31	35	39	3
NL	30	33	35	36	38	8
NO	38	39	46	45	48	10
PL	8	9	8	7	8	0
PT	43	38	46	48	44	1
SE	46	48	51	59	50	3
SI	31	33	35	35	39	7
SK	9	9	5			-4
UK	19	19	20	17	17	-2
Mean	*29.8*	*29.2*	*29.8*	*30.7*	*30.9*	*1.8*
SD	*16.6*	*16.5*	*18.0*	*18.2*	*18.1*	*5.7*
CV	*0.56*	*0.57*	*0.61*	*0.55*	*0.58*	*3.09*

Source: own calculations on EU-SILC.

Figure 7-2 2006-2010 change in FTE childcare coverage and FTE childcare coverage in 2006 (r = 0.10)



Note: FTE childcare coverage 2007 for Hungary. Change in FTE childcare coverage 2006-2008 for Slovak Republic.

Table 7-4 demonstrates that inequality in FTE childcare coverage (as measured by a relative index of inequality, RII, *supra*) decreased on average with 7% (-0.02). In 2006, the RII ranged from 0.01 in Iceland (an RII of 0 means total equality: children from different income groups use FTE childcare to the same extent) to 0.57 in Ireland. Given a standard deviation of 0.16, a 0.02 decrease is rather small. The coefficient of variation increased which means there is no evidence for *sigma* convergence. Inequality levels did not converge between countries, rather the contrary happened. Some countries report an above-average decrease of inequality: Austria (-0.13), Greece (-0.10), Finland (-0.9), Slovenia (-0.08), Ireland (-0.6), Norway (-0.6), France (-0.5), Germany (-0.5), Netherlands (-0.4), Hungary (-0.3, between 2007 and 2010), Slovak Republic (-0.3, between 2006 and 2008) and Czech Republic (-0.3). Others display an increase in inequality: Portugal (+0.13), Italy (+0.09), Belgium (+0.07), Luxemburg (+0.06), Iceland (+0.02), Poland (+0.02), and the United Kingdom (+0.02).

Table 7-4 Evolution of inequality in childcare coverage for children aged 0-2 years, 23 European countries, RII

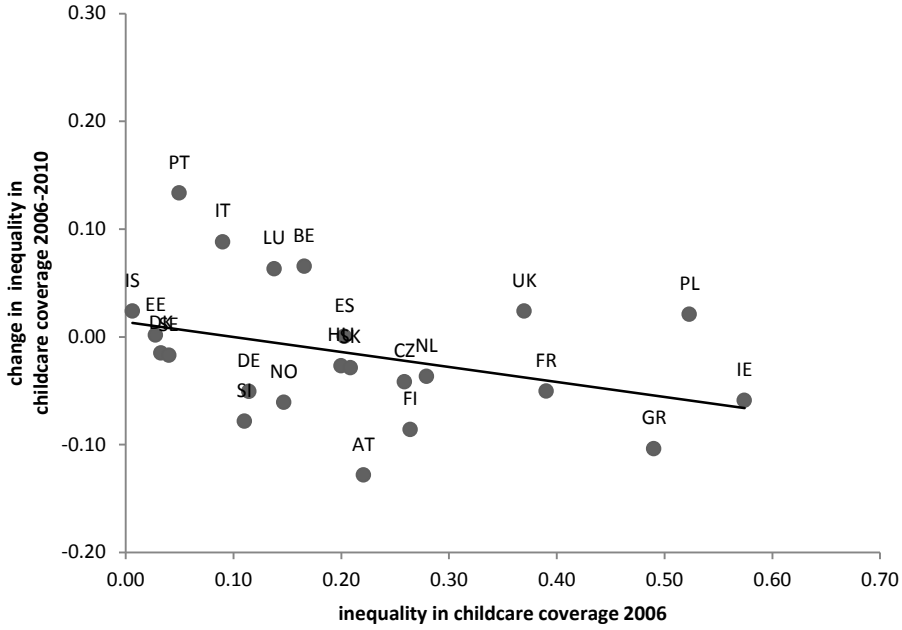
Country	2006	2007	2008	2009	2010	Change 2006-2010
AT	0.22	0.17	0.11	0.07	0.09	-0.13
BE	0.17	0.22	0.22	0.22	0.23	0.07
CZ	0.26	0.48	0.44	0.05	0.22	-0.04
DE	0.11	0.08	0.09	0.13	0.06	-0.05
DK	0.03	0.02	0.02	0.03	0.02	-0.02
EE	0.03	0.16	0.04	0.02	0.03	0.00
ES	0.20	0.18	0.18	0.23	0.20	0.00
FI	0.26	0.32	0.27	0.18	0.18	-0.09
FR	0.39	0.35		0.34	0.34	-0.05
GR	0.49	0.45	0.36	0.26	0.39	-0.10
HU		0.20	0.26	0.32	0.18	-0.03
IE	0.57	0.45	0.46	0.46	0.52	-0.06
IS	0.01	-0.02	0.04	0.02	0.03	0.02

IT	0.09	0.11	0.08	0.13	0.18	0.09
LU	0.14	0.18	0.12	0.18	0.20	0.06
NL	0.28	0.26	0.27	0.26	0.24	-0.04
NO	0.15	0.14	0.09	0.13	0.09	-0.06
PL	0.52	0.54	0.41	0.55	0.54	0.02
PT	0.05	0.16	0.24	0.13	0.18	0.13
SE	0.04	0.01	0.04	0.08	0.02	-0.02
SI	0.11	0.04	0.08	0.11	0.03	-0.08
SK	0.21	0.31	0.18			-0.03
UK	0.37	0.40	0.31	0.45	0.39	0.02
Mean	*0.21*	*0.23*	*0.20*	*0.20*	*0.20*	*-0.02*
SD	*0.16*	*0.16*	*0.13*	*0.15*	*0.15*	*0.06*
CV	*0.76*	*0.69*	*0.68*	*0.74*	*0.77*	*-3.89*

Source: own calculations on EU-SILC.

With regards to *beta* convergence, Figure 7-3 shows a negative relationship between initial inequality in childcare use and change in inequality in childcare use. This suggest that there has been some catching up: countries with high levels of inequality showed a relatively faster decline of inequality (if any) compared with countries that had already lower levels of inequality. This is what one would expect. After all, there is little room for improvement when inequality levels are already at a low point, which is for instance the case in Iceland and Denmark. In contrast, countries with high levels of inequality and low levels of coverage have much room for further improvement. From a social investment point of view, the challenge for most countries lies in increasing coverage while simultaneously ensuring equity. This is what happened in Germany, Ireland, Norway, Netherlands and Slovenia.

Figure 7-3 Change in inequality in childcare coverage and inequality in childcare coverage (r = -0.36)



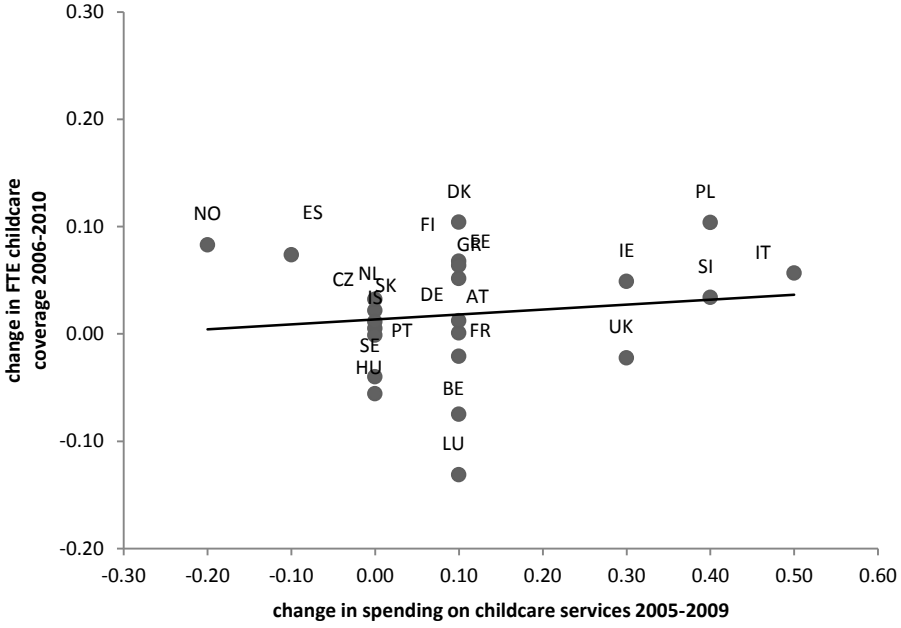
Note: FTE childcare coverage 2007 for Hungary. Change in FTE childcare coverage 2006-2008 for Slovak Republic.

7.5.3 Childcare spending, coverage and inequality: a bivariate assessment

Generally speaking, the data for 23 European countries suggest an increase in spending and coverage and a decrease in inequality. Yet there is no evidence for sigma and beta convergence with regard to spending levels and coverage rates; above all European 23 countries are characterized by variety. Some countries report an increase in coverage but an increase in inequality as well, others have had a decrease in coverage and an increase inequality. Only few have attained both objectives of growth and equality. How are these two objectives related to changes in childcare spending? Figure 7-4 and Figure 7-5 model the bivariate relationship between change in childcare spending and change in coverage on the one hand, and between change in childcare spending and inequality in childcare coverage on the other hand.

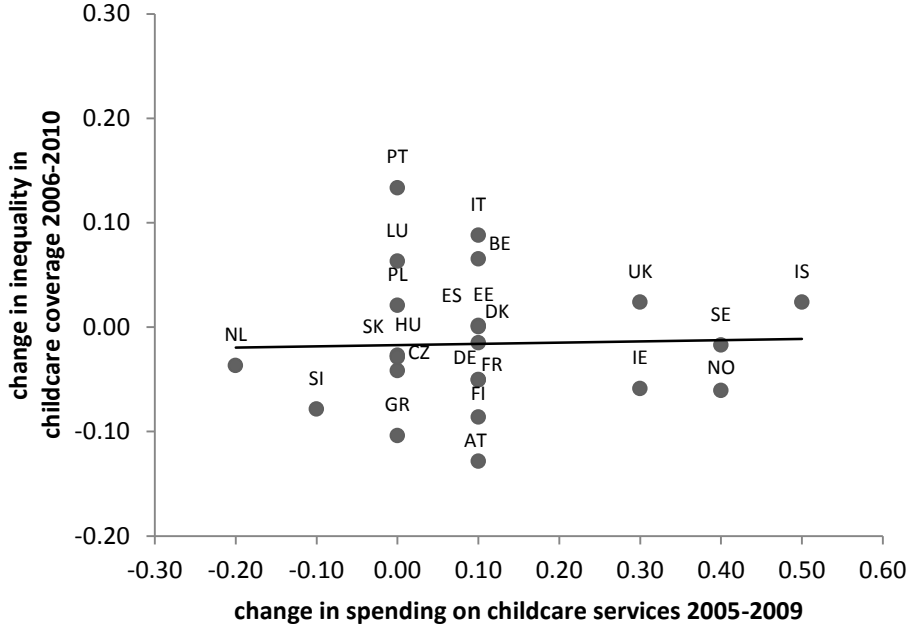
Figure 7-4 shows that there is a positive but very weak relationship between the 2005-2009 change in spending on childcare services and the 2006-2010 change in FTE childcare coverage. *Prima facie*, more spending is associated with higher coverage rates but several countries that have increased childcare spending did not experience an accompanying increase in coverage. Figure 7-5 shows that there is basically no relationship between 2005-2009 spending change and 2006-2010 change in inequality in childcare coverage. *Prima facie*, more spending tends not to be associated with lower inequality, yet above all the results are characterized by substantial variation between countries. In the next section, I will engage in multivariate analyses in order to shed more light on the impact of spending on childcare coverage as well as inequality.

Figure 7-4 change in childcare spending and change in FTE childcare coverage (r = 0.13)



Note: change in FTE coverage between 2007-2010 for Hungary and between 2006-2008 for Slovak Republic.

Figure 7-5 Change in childcare spending and change in inequality in FTE coverage (r = 0.03)



Note: change in inequality between 2007-2010 for Hungary and between 2006-2008 for Slovak Republic.

7.6 MULTIVARIATE RESULTS

The first two columns in Table 7-5 display models estimating the impact of lagged spending on childcare coverage, the final two columns display models estimating the impact of lagged spending on inequality in childcare coverage. The R^2 statistic shows that lagged spending is much better able to predict FTE childcare use (m1) than inequality in childcare use (m3). Most of the variation occurs between units instead of within, which is expected because spending on childcare is often stable within countries over time.

Table 7-5 Random Effects models of FTE childcare coverage and inequality in childcare coverage on childcare spending

	FTE childcare coverage		Inequality in childcare coverage	
	m1	m2	m3	m4
Childcare spending in of GDP $_{t-1}$	0.120 (.03) ***	0.112 (.03) **	-0.080 (.04)	0.002 (0.05)
Mat. emp. rate $_{t-1}$		0.189 (.07) **		0.011 (.11)
Population < 5 $_{t-1}$		-1.231 (2.20)		0.969 (3.36)
Logged GDP per capita $_{t-1}$		0.100 (.04) **		-0.034 (.05)
Well-paid leave		0.006 (.00)		-0.010 (.01 *)
Well-paid leave squared		-0.001 (.00)		0.000 (.00)
FTE childcare coverage				-0.364 (.16) *
Constant	0.21 (.04) ***	-0.125 (.14)	0.27 (.04) ***	0.348 (.18) *
Rho	*0.93*	*0.88*	*0.83*	*0.75*
R^2 within	*0.03*	*0.05*	*0.01*	*0.02*
R^2 between	*0.57*	*0.73*	*0.14*	*0.51*
R^2 overall	*0.54*	*0.70*	*0.13*	*0.48*
N	*111*	*111*	*111*	*111*

Note: standard errors between parentheses. Significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Drawback of a RE model is that the coefficients are difficult to interpret because both within-entity and between-entity effects are included. Model 1 (m1) in Table 7-5 shows that childcare spending as a percentage of GDP in t-1 has a strong impact on childcare use in t.

More specifically, the estimate shows the average effect of childcare spending on childcare use when spending changes across time and between countries by one unit. Here, a one percent change in childcare spending in t-1 yields a 12% increase in FTE childcare use. The estimates in model 2 (m2) suggest that spending in t-1 led to higher coverage in t, even controlled for demographic pressures, economic development and maternal labour market participation.

As for research question 2, model 3 (m3) shows a non-significant estimate of spending in t-1 on inequality in FTE childcare use. To be precise, a one percent increase in spending on childcare is associated with a 0.08 reduction of inequality; this is only half a standard deviation. Controlled for demographic pressures, economic development, maternal labour market participation and FTE childcare coverage, the estimate becomes redundant altogether. Hence, the estimates in model 4 (m4) suggest that spending in t-1 does *not* yield less inequality in FTE childcare coverage. I have also tested models without controlling for FTE childcare coverage, and the interpretation of the results does not change.

How should this result be interpreted? The strength and significance of the FTE childcare coverage variable might give us a clue here. We know from Chapter 5 that FTE coverage and inequality are inversely related and that inequality in childcare use tends to attenuate as coverage rates go up. The fact that more spending as such is not related to less inequality but more FTE coverage is, corroborates the hypothesis formulated in Chapter 6 that not spending as such is determining inequality; rather it depends how spending is done. In short, government investment in childcare should lead to an expansion of places available. Countries may pursue this goal through different strategies, depending on the path-dependent choices they have made in the past, for instance regarding the role of the private market (Morgan 2005). Consider the examples of Norway and the Netherlands. The former followed a supply-side strategy with the expansion of publicly and privately provided childcare services (via municipal grants to finance services, similar to the Swedish practice, see Chapter 3) while the latter has followed a demand-side trajectory including an expansion of

subsidies for families with children whilst leaving service provision to the market. For the brief period under consideration here, both countries have succeeded in simultaneously increasing coverage and mitigating inequality.

There may be limits to the demand-side strategy, however. In a context of demand-side subsidies such as childcare vouchers or tax credits and private-market supply of services, quality is often low, prices are high, and availability is volatile (Lazzari and Vandenbroeck 2012; Lloyd and Penn 2012). Moreover, research on the Dutch experience proves that for-profit companies providing childcare services often choose to settle in well-off neighbourhoods ensuring sufficient returns (Noailly and Visser 2009). In fact, subsidizing parents does not necessarily influence the spatial availability and quality of service provision, unless a mixed strategy of regulation, supply-side and demand-side subsidies is pursued. In sum, the current state of the literature would lead us to expect that only a public supply-side investment model is able to bring about more equality in service use; that was also one of my conclusions in the previous chapter. In contrast, the results from this chapter suggest that spending on parents and not on services (as is the case in the Netherlands) might still be an effective strategy to increase coverage and decrease inequality. In order to decisively test whether spending on the demand- or supply-side of the childcare market are both effective strategies to ensure equality in childcare use, one should ideally be able to distinguish government spending on public and private childcare providers, or on the supply or demand side. Unfortunately, such data does not exist. Given the fact that none of the high-coverage, low-inequality countries have pursued a demand-side strategy, it remains to be seen whether this is a viable policy option in the long term.

7.7 CONCLUSION

First of all, the descriptive findings on trends in spending, childcare use, and inequality in childcare use corroborate Randall's findings from more than a decade ago: "*EU childcare policy has lacked real teeth, being better able to influence the terms in which childcare is discussed than substantive policy*" (Randall 2000). Despite the importance attached to childcare policies at the EU policy level, and its prominence within the social investment strategy, there is no evidence for convergence across European countries in terms of childcare service spending or childcare service use.

Second, childcare spending is associated with higher levels of childcare. Although spending has increased across European countries during the 2005-2009 period, in fact the countries with already high levels of spending tended to move up another gear and report the biggest change in spending levels. In any case, the multivariate results suggest that spending on childcare services does indeed yield higher coverage levels.

Third, childcare spending is not necessarily associated with lower levels of inequality in childcare use. Although the limited number of time points in the dataset should refrain us in drawing strong conclusions on the impact of spending over time, the results suggest that spending as such is not sufficient to mitigate social inequalities in childcare use. More precisely, spending should lead to a wider availability of childcare places for young children across the income distribution. The more universalized childcare coverage becomes, the better its performance in terms of equality will be.

CHAPTER 8

CONCLUSION

Starting from a *passus* in the Gospel of Matthew and *Mertonian* functional theory, I have investigated two central research questions in this dissertation. First, I have dealt with the question who benefits from government investment in child benefits, parental leave schemes, and childcare services. This was in fact an inquiry into whether and how a Matthew effect looms under contemporary family policy measures. Second, using the Matthew effect as an analytical tool to evaluate policy outcomes, I have explored the consequences of government investment in family policy. This enabled me to assess whether government expenditures are deployed in such way that the current family policy measures attain the envisaged objective. In doing so, I devoted considerable attention to the role of policy design. It is now time for fitting the pieces of the puzzle together.

8.1 FOR WHOSE BENEFIT?

The Matthew effect is the moniker given to the phenomenon that the rich tend to get richer while the poor tend to stay poor. In social policy, the Matthew effect indicates that higher income groups benefit more from social policy measures than the lower income groups, an unintended yet often dysfunctional by-product of deliberate policy action. To investigate whether this phenomenon could also be discerned in the three mainstays of family policy in developed welfare states, I looked into 1) the social distribution of the outcomes of child benefits, parental leave, and childcare services; and 2) the allocation of government spending for these measures across different social groups.

The results from chapter 2 clearly demonstrate that for families with a youngest child aged 0-6 years, the uptake of parental leave schemes and the use of formal childcare services is biased in favour of higher income families and families with higher educated mothers. In contrast, child benefits are allocated more equally across the income distribution for the age group under consideration. Chapter 5 sketched a similar picture for childcare service use amongst children aged 0-3 years: children living in a household with a low skilled mother use childcare services to a much lesser extent than children living in a higher skilled household. In that chapter I formulated the hypothesis that a Matthew effect in childcare service use is likely to counteract the anticipated objective of government investment in childcare policies. Under the social investment paradigm, childcare services are put forward as an effective means to mitigate inequalities in early life. The fact that the social distribution of its use is biased in favour of children growing up in higher income families leads me to conclude that this strategy will fail to deliver. Similarly, if the objective of child benefits is to reduce child poverty, the phenomenon of the Matthew effect will make government investment in child benefits less effective. Indeed, chapter 4 showed that child benefit systems in which low income families receive higher benefits compared with higher income families are more successful in reducing child poverty. In contrast, countries in which higher incomes receive higher child benefits, the performance in terms of poverty reduction is weak. Viewing the outcomes of family policy measures through Matthew's lens provides us with insights on their effectiveness which would have been concealed otherwise.

The results demonstrate that we have good reasons to care about the social distribution of the benefits of family policy measures. It cannot be assumed that families from different social and economic backgrounds will react in a homogeneous way to the options and opportunities shaped by family policies. How families, *in casu* mothers and fathers, react to policies aimed at the care-employment nexus not only depends on policy specifics, but also on the context-specific nature of human agency and the unequal distribution of opportunities (Goodin 1998), for instance in the labour market. The inequality in childcare

coverage is indeed strongly related to labour market participation: the more employment opportunities are expanded over the income distribution, the lower inequality in childcare use will be (chapter 5). It is sometimes argued that the post-industrial society has freed itself from social class and traditional bonds (e.g. Beck 1992), and transformed into a place where everyone has the opportunity to be, in William Henley's words, the master of his own fate. Time and again, however, research shows that people are just as determined by their background and social context as they were half a century ago (Erikson and Goldthorpe 1992; Pintelon et al. 2013). The findings of this dissertation confirm that this also holds for 'new' risk policies such as childcare services and parental leave schemes.

8.2 Are Matthew effects unavoidable?

One of the premises I adopted in the introductory chapter of this dissertation is that Matthew effects are not inevitable. When it comes to parental leave, however, the Matthew effect is a universal observation: thus far no country succeeds in equalizing its uptake across the income distribution. This is a rather obvious consequence of the nature of such schemes because parental leave uptake is closely tied to labour market participation. Given the unequal participation of women in the labour market, with lower skilled women (and mothers in particular) reporting lower employment rates compared with their middle and higher skilled counterparts, the Matthew effect is likely to be inextricably bound to parental leave schemes. The unequal distribution of parental leave is only partially explained by differences in employment, however. In Sweden, where the social gap in employment rates is low (see chapter 3), the Matthew effect occurs as well. This might be due to the types of jobs held by parents in the lowest tiers of the labour market, or the system of remuneration (which is related to previous earnings, hence works to the advantage of higher earners) might impede leave use for families with insufficient resources.

For childcare services, matters are different: Denmark, Iceland, and to a lesser extent Sweden do succeed in avoiding a Matthew effect. Childcare services in these countries are widely used across the income distribution and as a result, coverage rates are high and inequality is low. Giuliano Bonoli (2007) has argued persuasively that 'time matters' in the development of social policy, and that certainly holds true for family policy. Countries that were confronted with new needs stemming from the post-industrial transition and the increase in female labour market participation, and consequently reoriented their policies early on, now yield much better results in terms of equity. Does it follow that it might only be a matter of time before other countries join the ranks of these frontrunners in achieving high childcare coverage rates whilst avoiding a Matthew effect? Alas, the findings from chapter 7 do not give us too much of a reason to be that optimistic. In the period from 2005 to 2009, there was no convergence in spending levels. As a corollary, in the 2006-2010 period there was no convergence in childcare coverage rates. Although the data point to a modest decrease of inequality across European countries, above all there still is a great deal of variation between countries.

The results from the analyses I have done throughout this dissertation suggest that we should not (and presumably cannot) count on achieving equity over time without a substantial boost in the spending effort of governments. To be precise, in order to decrease inequality in childcare use, public spending on childcare should lead to an across the board increase in childcare availability. The results from chapter 6 brings me to the conclusion that the most effective way to achieve this objective is through a supply-side commitment. Generally speaking, the more places that are publicly subsidized or provided by (local) governments, the lower the level of inequality in its use amongst young children. Moreover, these childcare services generally achieve a more consistent level of quality. Given the importance of childcare quality for child development, an issue I have discussed in chapter 5, this is an important consideration from a social investment point-of-view.

However, in chapter 7 I have shown that some countries have simultaneously achieved higher coverage rates and lower levels of inequality in childcare use through demand-side subsidies and stimulating for-profit service provision. Irrespective of the issue of quality, the jury is still out on the most effective policy strategy to achieve the best outcomes in terms of equity. Drawing on the varieties of capitalism literature, Kimberly Morgan (2005) juxtaposes two policy trajectories for countries to achieve high levels childcare coverage. On the one hand, in countries with a liberal market economy (e.g. the United Kingdom) childcare demands are catered for by for-profit providers whilst government involvement is limited to targeted service provision for a small share of low income families and subsidizing parents through tax credits and/or vouchers. In such countries, a private market can flourish because of the availability of a low-wage, low-skill social service workforce. On the other hand, in coordinated market economies (e.g. Sweden) private services are much more difficult to sustain because labour markets are more regulated; hence the social service workforce is less flexible and more expensive. Here, private market provision will not deliver high levels of coverage and extensive childcare service development can only occur through massive public investment (Bonoli and Remer 2010). Therefore, it might be the case that the kind of spending leading to equality in childcare outcomes will be dependent on a particular country's institutional features and path dependent labour market structure and social policy development. Unfortunately, providing a definite answer to this question is at present not possible due to data constraints (*infra*). At this point, a straightforward and (admittedly) simple conclusion is this: whatever policy trajectory chosen, ensuring equality in childcare use across children from different social backgrounds will require governments to step up their spending efforts.

8.3 THE ROLE OF POLICY DESIGN

Not only spending is important, policy design is an equally crucial factor in explaining the social distribution of the benefits of family policy measures. Case studies for Sweden and the Belgian region of Flanders in chapter 2 and chapter 3 allowed for an in-depth investigation of the allocation of government budgets for family policy and the role of policy design. The analyses showed that the lower income families are the main beneficiaries of spending on childcare services in Sweden, while the opposite is true in Flanders. This is not only the result of different patterns of maternal labour market participation, but also stems from differences in policy design. In Sweden, a place in childcare is guaranteed, public funds are geared towards service supply, and the tariff system is related to disposable income. In Flanders, a similar income-related tariff system is in place, but no guarantee exists. Moreover, governmental outlays are not only used to subsidize the provision of services but also to compensate parents of young children for their childcare expenses through a tax deduction scheme. This tax deduction scheme is more beneficial for families higher up in the income distribution; hence the Matthew effect occurs.

This also sheds light on the importance of the internal consistency of policy initiatives. In Flanders, for instance, the impact of the income-related tariff structure is undone by the simultaneous implementation of a tax deduction scheme. In a similar vein, in chapter 1 and chapter 5 I discussed the Finnish case where a place in childcare is guaranteed while at the same time a home-care allowance (HCA) is in place. Both policies work in opposite directions: childcare services serve to reconcile the presence of children in the household with paid work; a home-care allowance serves to allow parents (mothers in particular) to refrain from paid work and become a homemaker. Finally, in chapter 6 I used regression analysis to disentangle the institutional determinants related to inequality in childcare coverage. The results suggested that long periods of well-paid leave effectively counteract childcare use. In sum, if the objective is to include children growing up in low income families

into high-quality childcare, which is the main idea behind the child-centred investment strategy, a consistent policy strategy should be pursued.

8.4 Directions for further research

In his famous 1918 speech Science as a vocation (*Wissenschaft als Beruf*), Max Weber argued that "*every scientific 'fulfilment' raises new 'questions'; it asks to be 'surpassed' and outdated*" (Weber, 1919, cited in Weber 1991, 138). The results I have presented in this dissertation are no exception to this general rule.

First of all, we need *more* data. I'm well aware of the fact that this is an often-heard outcry among social scientists. But in the case of family policy research it is a genuine problem up to the point that if scientific progress is to be made, acquiring more data becomes indispensable. For example, the finding that not spending as such but the manner in which resources are spent is important to achieve more equality in service use, allows to formulate new hypotheses on the impact of a demand-side, supply-side, or a mixed strategy in providing government subsidies for childcare services. To advance our knowledge on this policy-relevant issue, we need data allowing to differentiate between spending on demand-side and supply-side subsidies, or between spending on not-for-profit and for-profit providers. Such data is however not available. An alternative would be to use data on the share of childcare places that are publicly or privately provided, as I have done in chapter 6. It is however unclear whether these figures are cross-country comparable and reliable, and there is no recent data available. The systematic collection of childcare data began in the 1980s in the wake of the formation of the *European Commission Childcare Network* in 1986. In the three reports issued by the Network, problems with the childcare data collected from governments were manifold: not comparable, unreliable, often missing, and "extremely inadequate" when it came to the extent and forms of private provision (Randall 2000, 349). Although many of these problems have been addressed with the introduction and

availability of EU-SILC data, several of the gaps and issues with the reliability of the data remain relevant still.

This brings me to the second point: we need *better* data. Wolfgang Keck and Chiara Saraceno (2011) have recently published a report in which they scrutinize the reliability of the childcare data in the EU-SILC database. They conclude that the data are not reliable for more than half of the countries, presumably because the sample sizes are too small. In my own analyses, this proved to be problematic in particular for countries with low levels of childcare use such as Czech Republic and Slovak Republic. To improve the reliability of the data, one solution is to calculate confidence intervals for the coverage rates (see Goedemé 2013for further reading) and to perform statistical tests for comparing means. I have done so in chapters 5 and6; unfortunately, Eurostat provides no information on the appropriate weighing procedure for the childcare variables. Moreover, Keck and Saraceno (2011) suggest that responses to the questions on childcare use are not always consistent. Respondents are asked to provide weekly caring hours for their children in different institutional settings (childminders, center-based services, pre-primary school, et cetera) during a regular week. Keck and Saraceno (2011) discuss the example of Germany for which the distribution of the responses suggests that a fair share of parents have provided the number of days per week instead of the requested hours per week. Such inconsistencies are difficult to take into account. Finally, given the small sample sizes in EU-SILC, it is not feasible to include the regional level as a unit of analysis. Given the great variety in childcare coverage rates and childcare availability within some countries (Italy, Germany, and Belgium are cases in point), adopting a regional perspective in issues of childcare inequality would nevertheless be a desirable step for further research.

Third, family policy outcomes should be analysed in a comprehensive, analytical framework. Most research in the realm of family policy thus far has focused on a single policy area, for instance the impact of leave *or* childcare on particular outcomes (Hegewisch and Gornick 2011). In this dissertation as well, I have separately assessed the outcomes of three measures of family policy. For instance, I have

shown in chapter 6 that the implementation of long periods of well-paid leave as an institutional feature of welfare states is related to higher inequality in childcare use. A next research step would be to combine data on childcare use with data on parental leave uptake in order the assess its *combined* impact on care and employment decisions amongst families with young children from different social backgrounds. This requires a dataset in which this kind of information is reliably asked for a sufficient sample of families with young children.

Fourth, future research attempts to take the Matthew effect into account should take due account of intensity of care use and intensity of labour market participation. In chapter 5, I employed a full-time equivalent measure (FTE) of childcare use but a simple, binary headcount measure of employment. I found out that inequality in childcare use amongst young children disappeared in several countries when only taking working mothers into account. Obviously, employment is not a binary event in real life; how does the intensity of work relate to the intensity of childcare use and parental leave uptake? It is well established in the literature that part-time work might be more readily available for low skilled women (De Henau, Meulders and O'Dorchai 2010; Fagan and Rubery 1996). Moreover, recent research on the impact of high-quality childcare services use on school readiness and labour market outcomes suggest that part-time care is as effective as fulltime care in terms of child development (Sylva et al. 2010). Suppose low skilled women follow a part-time strategy in work and care while high skilled mothers follow a fulltime care/fulltime work strategy. Both strategies may be desirable from a social investment point-of-view, and further research should take this into account.

Finally, the debate on childcare inequality needs to be pushed further empirically. One of the future research endeavours is to relate data on income mobility and intergenerational earnings elasticity (e.g. Corak 2006) or data on educational outcomes (such as PISA, e.g. OECD 2012c) to inequality in childcare service use. This would allow to empirically test the hypothesis that inequality in childcare use might increase rather than mitigate social inequalities.

8.5 FAMILY POLICY AND THE FUTURE OF SOCIAL INVESTMENT?

Elsewhere with Bea Cantillon I have criticized the social investment perspective for failing to address the issue of class and the issue of care (Cantillon and Van Lancker 2013). In this dissertation, both dimensions converge to an inseparable unit of analysis. What do the results learn with regards to the future success of the social investment strategy?

Under the social investment paradigm, labour market integration is not only regarded a superior way to achieve income protection and social inclusion at the individual level, but also an indispensable feature of 'productive' social policy systems because higher employment levels decrease benefit dependency and contribute to sound public finances, hence to the future sustainability of the welfare state. The prime channel to achieve this ideal of social inclusion through labour market participation is long-term investment in human capital, to begin in early life (Hemerijck 2012a). Family policy measures such as parental leave and in particular childcare services are an important part of the social policy package to achieve both objectives of higher employment rates and early life investment in human capital. This should be in particular beneficial for children from a disadvantaged background, ultimately breaking the intergenerational chain of poverty.

The results from chapters 2, 3 and 5 suggest, however, that the expectations regarding the benefits of early human capital investment policies for reducing poverty and inequality may be too optimistic due to the presence of a Matthew effect. More specific, in the domain of childcare a Matthew effect is dysfunctional and emerges as a first-order as well as a second-order effect. The intended objective to break the intergenerational chain of poverty will not be achieved as long as its use is socially stratified and as long as the higher incomes benefit more from these policies compared with the lower incomes. Moreover, it might even exacerbate rather than mitigate social inequalities in the long run.

Given the prevalence of the Matthew effect in the use of childcare services in the majority of European welfare states, a child-centred

investment strategy is not likely to achieve short-term progress in mitigating inequalities in early life. This is significant, because the consequences of growing up in poverty are far-reaching. First, it is well established that child poverty has adverse long-term effects on the life chances of these children as well as on their opportunities to become future productive adults (Duncan et al. 1998; Hackman, Farah and Meaney 2010). Second, given the inheritance of social inequality, children growing up in poverty have a great chance of becoming poor parents themselves (Corak 2006). In short, children growing up in poverty face inferior life chances and low levels of social mobility, and one can easily assume that the externalities of childrearing in poor circumstances will be negative. As a matter of fact, little progress has been made in combating child poverty in developed welfare states over the last decades (Chen and Corak 2008; TARKI 2010). Moreover, families with lower incomes have far less financial, human and social capital at their disposable to invest in their children compared with higher income households, with adverse consequences for child development (Bradley and Corwyn 2002). Research for the US, for instance, shows that high-income families spend about seven times more on their children than low-income families (Kaushal, Magnuson and Waldfogel 2011). For social investment proponents, this is a deplorable conclusion.

Enter child benefits. A large body of research has demonstrated that child benefits are of paramount importance in policy strategies for reducing child poverty (Bradshaw 2012; Kamerman et al. 2003; Salanauskaite and Verbist 2013). Chapter 4 has shown how child benefit systems have the potential to achieve a substantial reduction of child poverty. Given the fact that the resources available to parents is the strongest determinant of parental investment (Kornrich and Furstenberg 2013), child benefits are capable of providing families with sufficient resources to ensure the well-being of their children. In the social investment literature, however, the issue of income protection through cash benefits is regarded in a rather ambiguous way and often pejoratively referred to as being 'passive' (in contrast to 'active' or 'activating' services). This can be traced back to the different intellectual

and political influences that have shaped the social investment perspective in different countries (Morel, Palier and Palme 2012). Case in point is the fact that the two key publications underpinning the intellectual framework of social investment, i.e. *The Third Way (Giddens 1998)* and *Why we need a new welfare state* (Esping-Andersen et al. 2002), are at odds regarding the role of social protection. While social investment as put forward by Giddens (1998) should ultimately *replace* traditional forms of social protection, an interpretation that heavily influenced Third Way politics, Esping-Andersen (2002) draws on the Scandinavian variety of social investment to argue *against* Giddens that social investment and traditional social protection are both indispensable: "income security is a *precondition* for an effective social investment strategy" (Esping-Andersen et al. 2002). Therefore, both old and new forms of family policy should be the mainstay of any successful social investment.

I hope that my work will convince the reader that viewing the outcomes of family policy through Matthew's lens is both necessary and illuminating. Max Weber wrote that "*in science, each of us knows that what he has accomplished will be antiquated in ten, twenty, fifty years*" (Weber 1919; cited in Weber 1991, 138). I eagerly await my results to become outdated, for that would mean that the Matthew effect in family policy outcomes has been remedied.

ANNEX

Table A-1. Income cases and targeting indicator, 2009

	Income cases				TI	Size	Generosity	RPRE	RGAPRE
	2AW	AW	MW	SA					
AT	366,122	389,709	417,852	366,1223	-0,004	2,22	17,8	55,8	80,2
BE	330,491	330,491	340,719	396,5124	-0,065	1,64	18,5	31,3	63,1
BG	82,3929	82,39289	82,3929	82,3929	0	1,04	12,2	11,2	30,6
CZ	92,2643	92,2643	257,096	164,832	-0,4760	0,93	19,0	33,6	58,0
DE	307,033	307,033		307,033	0	1,78	15,2	38,6	71,3
DK	165,772	165,772		165,772	0	0,99	6,1	34,3	60,4
EE	88,8376	88,8376	49,6994	49,6994	0,147	1,82	5,8	37,3	58,8
ES	92,6935	79,4516	49,7085	49,7085	0,172	0,22	3,2	2,5	5,2
FI	169,914	169,914		169,914	0	1,6	5,6	51,4	80,1
FR	247,082	274,509	289,662	164,572	0,089	1,37	11,1	39,0	70,4
GR	156,209	115,537	58,8264		0,376	0,27	4,1	3,2	9,0
HU	150,266	150,266	150,266	150,266	0	2,14	19,5	51,0	83,4
IE	264,685	264,685	393,839	264,685	-0,053	3,31	18,1	55,2	81,0
IT	145,326	199,512	358,228	0	-0,056	0,47	10,2	13,6	26,5
LT	64,5287	64,5287	64,5287	45,0402	0,101	2,11	7,9	33,1	47,9
LU			550,805	564,974	-0,026	1,75	18,2	45,9	76,3
LV	86,915	86,915	44,428	32,840	0,250	1,64	5,6	18,6	38,7
NL	283,057	165,079	248,775	248,617	-0,030	0,73	11,5	32,3	65,6
NO	159,660	159,660		159,660	0	1,3	6,0	38,6	63,1
PL	73,759	73,759	69,450	50,940	0,108	0,55	6,9	19,5	41,9
PT	45,646	73,066	60,3839	59,5759	-0,138	0,54	5,4	13,2	35,2
RO	41,773	62,742	69,003	65,245	-0,182	0,69	16,5	14,2	40,5
SE	192,800	192,800		192,800	0	1,42	9,1	40,0	63,1
SI	133,078	305,407	264,044	264,044	-0,387	1,43	17,2	38,1	69,3

SK	111,042	111,042	111,042	58,1624	0,159	0,91	8,8	26,2	51,3
UK	167,4666	220,436	653,321	653,321	-0,760	1,73	33,4	40,7	72,0

Source: CSB MIPI Database and EU-SILC 2010. *Note*: for the income cases: monthly amounts, expressed in €PPP, for a couple family with two children (7 and 14 years old). There is no statutory minimum wage in DE, DK, FI and NO. The minimum wage scenario for Italy is based on Monthly contractual wage for the lowest qualification level in the fur and leather sector. GR lacks a social safety net for able-bodied persons. Size is expressed in % of GDP, generosity as % of the poverty line.

Table A-2. FTE formal childcare coverage across educational levels, and inequality indices

	FTE formal childcare coverage				Age-adjusted SII		RII	N
	Educational level			*Weighted mean*				
	Low	*Medium*	*High*		*coef*	*(SE)*		
AT	8.0	10.9	24.6	13.8	9.527	(2.03)	0.689	458
AU	10.7	17.2	18.3	16.9	3.242	(1.36)	0.192	809
BE	18.5	38.4	44.8	37.3	12.222	(1.96)	0.328	622
BG	3.8	7.9	31.1	10.9	10.597	(2.16)	0.969	308
CY	21.2	27.4	35.3	31.1	10.973	(4.34)	0.353	230
CZ	2.7	2.7	4.4	3.0	1.494	(1.00)	0.492	695
DE	18.1	21.7	31.3	25.0	9.952	(2.20)	0.397	725
DK	75.8	74.0	75.2	73.1	-0.758	(2.36)	-0.010	499
EE	36.5	23.0	32.1	28.8	2.989	(2.46)	0.104	403
ES	24.0	33.5	41.5	34.0	9.718	(1.42)	0.286	1057
FI	11.7	21.7	31.3	26.0	8.894	(1.98)	0.342	857
FR	17.2	40.7	70.7	49.7	26.654	(1.87)	0.536	864
GR	15.1	7.0	24.8	15.8	8.381	(2.01)	0.532	557
HU	6.3	9.0	16.0	10.2	5.585	(1.65)	0.546	626
IE	6.7	9.5	28.6	17.0	13.725	(2.05)	0.808	418
IS	57.4	56.7	59.1	58.0	4.107	(2.18)	0.071	400
IT	26.3	36.3	38.5	33.5	7.602	(1.26)	0.227	1681
LT	2.4	9.6	32.5	19.7	16.547	(3.48)	0.840	207
LU	21.2	27.2	50.6	35.5	15.841	(1.79)	0.446	645
LV	13.8	18.5	30.8	21.2	9.403	(2.20)	0.443	461
MT	40.2	34.4	36.5	37.6	-2.049	(3.16)	-0.055	295
NL	18.3	34.7	53.5	40.4	18.140	(1.60)	0.449	909
NO	35.2	41.9	53.6	45.1	9.482	(2.46)	0.210	507
PL	2.1	3.2	14.0	6.8	8.558	(1.20)	1.253	1195
PT	42.5	64.0	50.8	48.3	6.911	(3.68)	0.143	243
RO	3.5	9.0	14.4	8.0	6.618	(2.06)	0.832	275
SE	42.1	63.6	69.4	63.9	11.157	(2.46)	0.175	596
SI	19.7	33.4	40.4	35.3	7.692	(2.15)	0.218	803
SK	-	3.8	3.6	3.5	1.779	(1.68)	0.516	356
UK	8.6	10.9	30.1	17.2	13.493	(1.96)	0.787	525
US	20.3	33.0	44.3	38.8	11.800	(1.04)	0.304	3855

Source: own calculations on EU-SILC 2009, HILDA 2010 and NHES ECPP 2005. Selection: children under three years old. (-) = no observations. SII refers to the "slope index of inequality" and RII stands for "relative index of inequality". Please refer to the main text for an explanation of these concepts.

Table A-3 Overview of indicators

	FTE Informal care (%)	Cost (% of average wage)	Social right	Supply (slots per 100 children)	Expenditure (% of GDP)	Well-paid leave (duration in months)	Well-paid leave (months, centred & squared)	Low-skilled maternal employment (%)	Attitudes (% of low-skilled mothers)
AT	9.7	17		9	0.4	3.7	28.1	16.0	85
AU	11.0	13		25.45	0.4	0	81.0	23.1	42
BE	7.6	4		34.2	0.7	3.4	31.4	32.8	33
BG	17.7	11		7	0.8	25.3	265.7	29.7	54
CY	38.7	16		17.7	0.3	4.1	24.0	28.9	81
CZ	13.4	11		8	0.4	6.4	6.8	16.0	38
DE	4.3	14		10.2	0.5	15.4	41.0	17.8	58
DK	0.0	11	Yes	56	1.4	12.1	9.6	57.7	5
EE	12.3	7	Yes	22	0.4	18.9	98.0	23.0	62
ES	12.4	8		16.6	0.6	3.7	28.1	38.7	56
FI	1.8	12	Yes	21	1.8	9.2	0.0	12.9	13
FR	8.8	9		43	1.3	3.7	28.1	38.9	34
GR	45.9	5		7	0.1	10.1	1.2	22.3	69
HU	7.0	6		6	0.7	24.9	252.8	10.6	64
IE	12.1	45		15	0.4	0	81.0	14.9	31
IS	3.3	8		-	0.9	3.0	36.2	44.3	20
IT	16.3	-		11.4	0.7	4.6	19.4	34.7	82
LT	11.1	12		18	0.6	26.1	292.4	37.0	83
LU	8.1	5		14	0.4	3.7	28.1	45.9	64
LV	8.7	11		16	0.6	13.7	22.1	31.9	74
MT	10.8	22		-	0.6	0	81.0	23.4	-
NL	14.1	6		14.5	0.9	3.7	28.1	50.0	35
NO	2.0	17	Yes	37	1.3	12.0	9.0	47.2	35
PL	23.5	7		2	0.3	4.1	24.0	18.7	64
PT	26.2	3		19	0.5	3.7	28.1	56.8	69
RO	43.0	-		-	0.8	26.0	289.0	30.1	57
SE	0.5	6	Yes	49.8	1.6	12.8	14.4	32.6	43
SI	20.6	9		27	0.5	11.9	8.4	49.2	44
SK	12.7	7		17.7	0.4	0.0	81.0	8.6	52

UK	12.4	10		26	0.8	1.5	56.3	27.4	30
US	13.1	34		35.5	0.3	0	81.0	24.5	31
Mean	*13.4*	*11.9*		*20.9*	*0.6*	*8.6*	*66.9*	*30.5*	*50.3*
SD	*29.4*	*8.9*		*13.6*	*0.3*	*8.3*	*85.9*	*13.5*	*21.3*
N	*31*	*29*	*31*	*28*	*31*	*31*	*31*	*31*	*30*

Note: (-) = no information available. Sources and operationalization of these indicators in Table 6-2. Indicator 'coverage' can be found in Table A-2.

Table A-4 Unstandardized and standardized coefficients from OLS regression models predicting RII (robust standard errors)

	Model 1			Model 2			Model 3		
	b	(SE)	β	b	(SE)	β	b	(SE)	β
Coverage	-1.037 *	(.289)	-.618						
Cost	.001	(.005)	-.019						
Social right	-.096	(.096)	-.122						
Supply				-.015 *	(.005)	-.723			
Government spending				.178	(.130)	.236			
Maternal employment							-.683 *	(.290)	-.319
Attitudes							.100	(.176)	.073
Parental leave							-.007	(.007)	-.190
Parental leave²							.002 *	(.001)	.490
Informal care							.508	(.297)	.200
R^2		.468			.341			.419	
N		29			28			30	

Note: Significance: * $p < 0.05$. Please refer to the main text for data explanations

NEDERLANDSTALIGE SAMENVATTING

Centraal in dit werk staat het Mattheuseffect, genoemd naar een passus uit het evangelie van Mattheus (13,12): "*Want aan ieder die heeft, zal gegeven worden en wel overvloedig. Maar aan degene die niet heeft, zal zelfs nog ontnomen worden wat hij heeft*." Eerder empirisch werk heeft inderdaad aangetoond dat veel maatschappelijke fenomenen en processen gekenmerkt worden door een Mattheuseffect.

In het sociaal beleid betekent het Mattheuseffect dat het profijt van het overheidsbeleid vooral ten goede komt aan de midden- en hogere inkomensgroepen en minder aan de laagste inkomens. Herman Deleeck, bijvoorbeeld, was een van de eersten om dit fenomeen systematisch te analyseren in relatie tot het sociaal beleid. Zijn onderzoek voor de jaren zeventig wees uit dat bijvoorbeeld de kinderbijslagen in België vooral ten goede kwamen aan rijkere gezinnen. De reden hiervoor was tweeledig: enerzijds hadden de rijkere gezinnen gemiddeld gesproken iets meer kinderen en stroomden die kinderen veel vaker door naar het hoger onderwijs (compositie-effect); anderzijds waren de kinderbijlsagen erg universeel georiënteerd (beleidseffect). Deze universele oriëntatie wil zeggen dat de uitgaven voor de kinderbijslagen ongeveer in gelijke mate ten goede kwamen aan alle gezinnen met kinderen, ongeacht het inkomen van het gezin in kwestie. Het compositie-effect en het beleidseffect samen zorgden er voor dat de kinderbijslagen de rijken rijker maakten.

In dit werk onderzoek ik de uitkomsten van het hedendaagse gezinsbeleid, en daarvoor gebruik ik de observatie van het Mattheuseffect als analytisch kader. Twee vragen staan centraal: 1) Wie plukt de vruchten van overheidsinvesteringen in het gezinsbeleid?; en 2) wat zijn hiervan de implicaties voor de doelstellingen van de overheidsinvesteringen in het gezinsbeleid? Met andere woorden, is er ook vandaag een Mattheuseffect werkzaam in het gezinsbeleid, hoe

manifesteert zich dat, en wat zijn daarvan de gevolgen? Ik focus daarbij op drie beleidsinstrumenten: kinderopvang, ouderschapsverlof en kinderbijslagen.

Beleidskeuzes dragen inherent een doelstelling in zich mee, i.e. wat men met het beleid en dito overheidsuitgaven wil bereiken, maar dat impliceert niet *noodzakelijk* dat deze doelstelling ook echt wordt behaald. Meerdere beleidsdoelstellingen kunnen bovendien ook met elkaar conflicteren. We weten bijvoorbeeld dat de toename van arbeidsparticipatie door vrouwen tot op heden een 'emancipatie in twee snelheden' is geweest: het veralgemeend tweeverdienersschap is eerst en vooral een zaak van hoger geschoolde en niet van lager geschoolde vrouwen. De werkgelegenheidspatronen verschillen dus erg sterk tussen lage en hoge inkomensgezinnen. Als de verzoening van arbeid en gezin een doelstelling is van het kinderopvangbeleid, dan is de implicatie dat het gebruik van kinderopvang vooral bij de hogere inkomensgroepen geconcentreerd zou moeten zijn. Als beleidsmakers kinderopvang echter willen inzetten als instrument om de arbeidsmarktdeelname van moeders die nu nog niet actief zijn aan te moedigen, dan moet het gebruik van opvang geconcentreerd zijn bij de lagere inkomensgroepen (waarin werkloze en lager geschoolde kostwinnersgezinnen oververtegenwoordigd zijn). Kijken naar de gevolgen van het gezinsbeleid 'door de bril van Mattheus' is dan dienstig om deze doelstellingen te evalueren.

De socioloog Robert Merton merkte reeds in de jaren dertig op dat beleidsdaden soms ook onbedoelde gevolgen hebben. Het gaat om gevolgen van bepaalde beleidskeuzes die niet zijn voorzien en dus geen beleidsdoelstelling zijn, maar die wel een negatief effect kunnen hebben. Als de overheid met haar kinderopvangbeleid de doelstelling nastreeft om arbeid en gezin met elkaar in overeenstemming te brengen, dan is de *consequentie* dat deze overheidsmiddelen vooral ten goede komen aan gezinnen die al tot de hogere inkomensgroepen behoren. Met andere woorden, de hogere inkomensgroepen hebben relatief gezien meer profijt van het overheidsbeleid dan de lage inkomensgroepen. Dat is niet noodzakelijk de bedoeling van een beleid om arbeid en gezin met

elkaar te verzoenen. Ook voor de onbedoelde gevolgen van het beleid is het Mattheuseffect dus een nuttig analysekader.

Kinderbijslagen zijn een 'oude' vorm van gezinsbeleid; het is vooral de bedoeling om voor een aanvullend inkomen te zorgen voor gezinnen met kinderen om zo de kost van de kinderlast te helpen dragen. De institutionalisering van de kinderbijslagen verliep parallel met het ontstaan en de uitbreiding van de klassieke welvaart tijdens de *trentes glorieuses* na de Tweede Wereldoorlog.

Sinds de jaren zeventig hebben zich structurele veranderingen voorgedaan op zowel de arbeidsmarkt als in de samenleving, en daarbij is de sociaaleconomische context waarin welvaartsstaten zijn verankerd grondig gewijzigd. De overgang naar een kenniseconomie, veranderende gezinsstructuren en de vrouwenemancipatie leidden tot een toename van de arbeidsdeelname door vrouwen en parallel hiermee het verdwijnen van het klassieke kostwinnersmodel ten voordele van een veralgemeend tweeverdienersschap. De instrumenten van de klassieke welvaartsstaat, die vooral waren gericht op het beschermen tegen de zogenoemde oude sociale risico's (bijv. werkloosheid, pensioen, ziekte, kinderen) waren niet toereikend om de nieuwe behoeften, die samenhangen met de vergrote intreding van vrouwen op de arbeidsmarkt en de gewijzigde gezinspatronen, voldoende te ondervangen. Het afstemmen van betaalde arbeid op ouderlijke zorg voor de kinderen werd derhalve een belangrijk politiek thema voor beleidsmakers, met name in het licht van Europese ambities (i.e. de Lissabon-strategie en de daaropvolgende EU2020-strategie) om arbeidsparticipatie van vrouwen nog verder te verhogen. Kinderopvang en ouderschapsverlof, die de combinatie arbeid en gezin mogelijk maken, zijn dan ook relatieve 'nieuwe' instrumenten van het gezinsbeleid.

In plaats van de klassieke welvaartsstaat spreken we nu over de 'sociale investeringsstaat' waarin het sociaal beleid meer en meer wordt aangewend om mensen weerbaar te maken om zelf hun plaats *in* de arbeidsmarkt te kunnen veroveren, in plaats van mensen te beschermen door middel van cash uitkeringen voor het geval ze *naast* de arbeidsmarkt vallen. Dat gaat samen met een verscherpte focus op

investeren in jonge kinderen. Hoogkwalitatieve kinderopvang wordt daarbij gepromoot als het beleidsinstrument *par excellence* om de latere kansen in het onderwijs en op de arbeidsmarkt te verzekeren van kinderen die opgroeien in armoede. De vraag is of deze beleidsdoelstellingen realiseerbaar zijn, en aan wie de overheidsmiddelen voor het gezinsbeleid nu eigenlijk ten goede komen.

In hoofdstuk 2 beantwoord ik twee vragen in vergelijkend perspectief: 1) zijn de overheidsmiddelen voor de nieuwe vormen van gezinsbeleid (kinderopvang en ouderschapsverlof) toegenomen, en ging dat ten koste van de uitgaven voor kinderbijslagen?; en 2) maken gezinnen met een verschillende sociale achtergrond in gelijke mate gebruik van deze beleidsmaatregelen? Ik focus daarbij op kinderen jonger dan zes jaar. De resultaten tonen *ten eerste* dat de uitgaven voor zowel kinderopvang als ouderschapsverlof gestegen zijn in bijna alle Europese landen, maar dat dit niet ten koste ging van de uitgaven voor kinderbijslagen die vaak ook stegen. De resultaten tonen *ten tweede* dat het gebruik van ouderschapsverlof en kinderopvang erg ongelijk is verdeeld: jonge kinderen die opgroeien in een gezin met een laag inkomen maken veel minder gebruik van kinderopvangvoorzieningen dan kinderen die opgroeien in een gezin met een hoger inkomen. De ongelijkheid is erg uitgesproken in de leeftijdsgroep van 0 tot 3 jaar. Met uitzondering van Denemarken en in mindere mate Zweden, slaagt geen enkel land er in om in een gelijk gebruik van opvang te voorzien voor alle kinderen ongeacht hun sociale achtergrond. In veel landen is het gemiddeld opvanggebruik ook erg laag. Voor de oudere kinderen is de ongelijkheid over het algemeen beperkter, onder meer omdat in een aantal landen universele kleuterschool bestaat. Wat ouderschapsverlof betreft krijgen we een gelijkaardig beeld: laaggeschoolde moeders van jonge kinderen maken veel minder gebruik van verlofregelingen dan hoger geschoolde moeders. De kinderbijslagen daarentegen zijn vandaag veel gelijker verdeeld over inkomensgroepen.

In hoofdstuk 3 presenteer ik een casestudy van het kinderopvangbeleid in Zweden en Vlaanderen. In Vlaanderen wordt het kinderopvangbeleid duidelijk gekenmerkt door een Mattheuseffect. De overheidsinvesteringen komen in grotere mate terecht bij de hogere

inkomens dan bij de lagere inkomens. De reden hiervoor is de combinatie van een hogere mate van opvanggebruik en het systeem van fiscale korting (belastingaftrek), waardoor het effect van de inkomensgerelateerde tariefstructuur volledig ongedaan wordt gemaakt. In Zweden zien we het tegenovergestelde beeld: het gebruik van kinderopvang is niet alleen gelijkmatiger verdeeld over de verschillende inkomensgroepen, de laagste inkomens ontvangen er bijna dubbel zoveel aan de overheidssubsidies in vergelijking met de hoogste inkomens, omwille van het inkomensgerelateerde tariefstelsel en het ontbreken van een systeem van fiscale korting. Hoewel kinderopvang in beide landen de expliciete doelstelling heeft om de sociale integratie te bevorderen, slaagt enkel het Zweedse model erin om de kwetsbaarste groepen in de samenleving in het opvangsysteem te integreren. Hier wordt niet alleen het belang van het beleidsontwerp in het ontstaan van een Mattheuseffect duidelijk, het toont ook dat een Mattheuseffect vermijdbaar is.

Hoofdstuk 4 gaat dieper in op het stelsel van de kinderbijslag in Europese landen. Focus hier is op de laagste inkomensgroepen: welk beleidsontwerp heeft de grootste impact op het kinderarmoederisico? De resultaten tonen dat kinderbijslagstelsels die meer selectief inzetten op lage inkomensgezinnen effectiever zijn in het reduceren van kinderarmoede. Landen die daarentegen hogere bedragen voorzien voor hogere inkomensgroepen, i.e. gekenmerkt worden door een Mattheuseffect, presteren erg zwak in het reduceren van kinderarmoede. De best presterende landen kennen een universele kinderbijslag waarbinnen hogere bedragen worden voorzien voor lage inkomens (het zogenaamde 'progressief universalisme' of 'selectiviteit binnen universaliteit').

Hoofdstuk 5 evalueert de doelstelling van het kinderopvangbeleid. In dit hoofdstuk wordt een eenvoudig argument ontwikkeld: als hoogwaardige kinderopvang goed is voor de cognitieve en niet-cognitieve ontwikkeling van alle kinderen maar in het bijzonder voor kinderen die opgroeien in armoede, dan moeten vooral deze laatsten gebruik maken van hoogwaardige kinderopvang. De resultaten van hoofdstuk 2 en 3 toonden reeds dat ongelijkheid in

kinderopvanggebruik de norm is in Europese landen, en de resultaten in dit hoofdstuk bevestigen die trend voor een grotere groep van landen (waaronder Australië en de Verenigde Staten).

Dit universele patroon van ongelijk gebruik suggereert dat de doelstelling van kinderopvang om de sociale ongelijkheid bij jonge kinderen te verkleinen op dit moment niet realistisch is. De uitbreiding van kinderopvangvoorzieningen, zoals gestuurd door het Europees beleid, kan de ongelijkheid zelfs vergroten; het omgekeerde van wat wordt beoogd. Verdere analyses in dit hoofdstuk tonen dat de ongelijkheid in gebruik niet verklaard kan worden door informele zorg door grootouders of familie: lager geschoolde moeder kunnen zelfs minder een beroep doen op grootouderlijke zorg dan hoger geschoolde moeders. Tewerkstelling daarentegen is wel een erg belangrijke verklarende factor: wanneer alleen het opvanggebruik van kinderen die leven in gezin met een *werkende* moeder in acht wordt genomen, dan blijkt de ongelijkheid in de meeste landen te verdwijnen.

De analyses in dit hoofdstuk demonstreren ook het belang van een consistent beleid. Finland is een mooi voorbeeld van hoe verschillende beleidsinstrumenten elkaar kunnen tegenwerken. In Finland heeft elk kind recht op een plek in hoogkwalitatieve kinderopvang, maar gezinnen kunnen er ook voor kiezen om een uitkering te ontvangen als een van de ouders (vaak de moeder) thuisblijft om voor de kinderen te zorgen. Het gevolg is dat deze uitkering een incentive is voor moeders met weinig perspectieven op de arbeidsmarkt om thuis te blijven en zelf voor hun kinderen te zorgen. Dat zorgt, ondanks de voldoende beschikbaarheid van kinderopvang, voor een enorme kloof in het gebruik ervan.

In hoofdstuk 6 ga ik dieper in op de oorzaken van dit ongelijk gebruik van kinderopvang. Door middel van een vergelijkende studie ga ik na welke institutionele elementen van de welvaartsstaat gerelateerd zijn aan ongelijkheid in kinderopvang. Ik vind onder meer bevestiging voor het belang van consistentie in het gevoerde beleid en voor tewerkstelling: landen die inzetten op erg lange periodes van betaald ouderschapsverlof kennen meer ongelijkheid in kinderopvanggebruik, landen waar laaggeschoolde moeders meer aan het werk zijn kennen

minder ongelijkheid in opvanggebruik. De resultaten van dit hoofdstuk suggereren ook dat meer overheidsuitgaven voor kinderopvang op zich niet voldoende zijn om lagere ongelijkheid in kinderopvang te bewerkstelligen, het doet er toe *hoe* de uitgaven worden gespendeerd. Meer specifiek moeten de uitgaven leiden tot de grotere beschikbaarheid van opvangplaatsen.

In hoofdstuk 7, ten slotte, ga ik nog een stapje verder en bekijk ik deze kwestie over tijd. Op basis van vergelijkbare data over het gebruik van kinderopvang en de overheidsuitgaven voor kinderopvang over de periode 2006-2010 ga ik na of bijkomende overheidsuitgaven leiden tot 1) meer kinderopvanggebruik; en 2) minder ongelijkheid in kinderopvanggebruik. De resultaten laten zien dat meer investeren in kinderopvang inderdaad leidt tot meer gebruik van kinderopvang door jonge kinderen, maar dat de ongelijkheid er niet noodzakelijk mee vermindert. Met andere woorden: het huidige investeringsbeleid moet worden bijgestuurd om meer gelijkheid in opvanggebruik te bewerkstelligen. De resultaten suggereren een complexe relatie tussen overheidsinvesteringen voor kinderopvang en ongelijkheid in gebruik van kinderopvang, maar de data laten vooralsnog niet toe om deze kwestie verder uit te diepen.

Het Mattheuseffect als analysekader laat zien dat sociale klasse nog steeds relevant is om de uitkomsten van het sociaal beleid te begrijpen. Mijn conclusie is dan ook dat we niet kunnen verwachten dat mensen die tot verschillende sociale groepen behoren op een homogene manier zullen reageren op beleidsmaatregelen die vaak bedoeld zijn om bepaalde gedragsveranderingen te bewerkstelligen. Beleidsmakers moeten hier rekening mee houden. Meer specifiek eindig ik dit werk met een pleidooi voor een herijking van de sociale investeringsgedachte. Het Mattheuseffect in het ouderschapsverlof maar vooral in de kinderopvang leidt er toe dat we niet kunnen verwachten dat deze instrumenten op dit moment zullen bijdragen tot een vermindering van de sociale ongelijkheid noch tot het verminderen van kinderarmoede. Niet alleen moeten overheden streven naar het wegwerken van het Mattheuseffect (en mijn resultaten geven een aantal aanzetten hoe dat zou kunnen), ook inkomensbescherming moet terug prominent in beeld

komen. Daar spelen kinderbijslagen een erg belangrijke rol: zij hebben een onmiddellijke impact op het gezinsinkomen van gezinnen met kinderen, en dragen zo bij tot een significante en directe vermindering van de kinderarmoede. Kortom, zowel de nieuwe als de oude instrumenten van het gezinsbeleid zijn noodzakelijk om van sociale investeringen een echt succes te maken.

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